DOCUMENT RESUME

ED 090 124 SO 007 386

TITLE	Case Studies of Educational Innovation: I. At the Central Level.
INSTITUTION	Organisation for Economic Cooperation and Development, Paris (France). Centre for Educational Research and Innovation.
PUB DATE	73
NOTE	620p.
AVAILABLE FROM	OECD Publications Center, Suite 1207, 1750 Pennsylvania Ave., N.W., Washington, D.C. 20086 ($10.00)
EDRS PRICE	MF-$1.05 HC-$29.40 PLUS POSTAGE
DESCRIPTORS	Administrative Organization; *Comparative Education; Curriculum Development; Curriculum Research; *Educational Change; Educational Improvement; Educational Innovation; Educational Objectives; Educational Principles; Educational Research; Institutional Research; *National Programs; Organizational Change; *Relevance (Education); *Research and Development Centers; Research Utilization; Social Influences
IDENTIFIERS	Canada; Germany; Norway; Sweden; United Kingdom; United States

ABSTRACT

This publication is aimed at assisting countries as they respond to the problem of organizing a continuing process of change in the schools. The seven case studies contributed to this volume illustrate ways of balancing organizational processes and the free initiative of individual schools and teachers, within the varying traditions of each country. This volume is the first of a series of four which present case studies in education innovation (see ED 085 327 and SO 006 884). The "central level" means national level in three instances and state of provincial level in four, although, the national level may be involved, as in the United States, through federal legislation. Case studies include the Schools Council, United Kingdom; the Ontario Institute for Studies in Education (OISE), Canada; the National Council for Innovation in Education (NCIE), Norway; the New Jersey Administration, United States; the National Board of Education (NBE), Sweden; The Bavarian State Institute for Educational Research and Planning, Germany; and Research for Better Schools Inc., (RBS), United States. (JH)

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SO 007 386
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This publication is one of a series of four volumes
on educational innovation :

Volume I is concerned with central institutions ;
Volume II deals with innovation at the regional level ;
Volume III deals with innovation at the school level ;
Volume IV "Strategies for Innovation in Education",
summarizes and draws conclusions based on the earlier volumes.

Centre for Educational Research and Innovation (CERI)

CASE STUDIES OF EDUCATIONAL INNOVATION:

I. AT THE CENTRAL LEVEL

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
1973

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PREFACE

During the last two decades the schools, which were traditionally the cornerstones of social stability and continuity, have become the crucible of social change. It was to be expected that societies which have opted for rapid economic and technological changes would be faced by deep social changes reaching into the schools. What perhaps was not bargained for is that - as increasing affluence has sparked off demands for equality - the school itself has become the platform for social change.

Today we can see the signs of a reaction, in terms of a re-emphasis of the educational as opposed to the social role of the school. The theme that standards of education should not be sacrificed to social aims is advanced to combat those who see the school as an instrument of social policy.

In these circumstances the theme of innovation in education is as sensitive as it is important. Yet no one can doubt that all countries are impelled towards a headlong process of change in the schools, and that an assessment of attempts to make this an effective process is overdue. For whatever the different social attitudes concerning the role and its role in society, it is not feasible to expect a standstill in the school whilst at the same time accepting a rapid process of economic, technological and cultural change in the surrounding community. Some way has to be found of relating the school to this process of change in a way that widens opportunities for children, maintains educational standards and recognises that the school must have a foot in both the past and the future.

However, to talk of strategies of innovation, which is to be the general subject of a series of CERI reports, is to assume that it is possible to plan and manage the process of change in the schools. Such an assumption is sometimes challenged on the grounds that organisational structures to promote educational change will become a "technocracy of innovation", and thereby stifle the creativeness of the teachers in particular and the schools in general. But is not the reality that what the teacher and his pupils can achieve is greatly constrained by lack of information, resources and - let it be said - organisation. Potential innovations assail the schools on all sides with little hope of a considered or systematic evaluation - so that they may be rejected or adopted according to proven merit.

Surely the answer lies in some sort of balance between an organised process and the free initiative of the individual school or teacher, a balance that will be struck in different ways in different countries according to their traditions.

CERI's studies on innovation in education have tried to evaluate what is actually happening in different Member countries to achieve this balance, and to establish effective institutions in the different national circumstances. Seventeen case-studies have been carried out at the national, regional and school levels (for the list see below), involving the efforts of some twenty-four research workers. The aim has been to diagnose the reasons for success and failure, and to probe the conditions under which planners, administrators and teachers can work together effectively.

The results of this major study will be published in four volumes, of which the present Report is Number I, as follows:

Case Studies of Educational Innovation -

I. At the Central Level.
II. At the Regional Level.
III. At the School Level.
IV. Strategies for Innovation in Education - A Synthesis.

The broad conclusion to be reached from all this work is that, regardless of educational philosophy and political traditions, all countries are now grappling with the problem of organising a continuing process of change in schools. Already many new institutions are emerging, and the elements of policy begin to be defined. No country can afford to ignore these trends, even if only because the schools are influenced by new ideas from other countries as well as those from within national boundaries. A policy for innovation, and institutions to produce it, is becoming necessary in one form or another. It is hoped that this series of reports will assist countries to build their own arrangements faster and more effectively than would otherwise be possible.

CERI owes its appreciation to many individuals, institutions and authorities for the vast amount of willing energy that has been devoted to the completion of these volumes. They are too many to be thanked individually, but their contributions will emerge as the series of reports is published.

J.R. Gass
Director
Centre for Educational Research
and Innovation

CASE STUDIES OF EDUCATIONAL INNOVATION:

I - AT THE CENTRAL LEVEL

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Part One

THE SCHOOLS COUNCIL, UNITED KINGDOM

by

John NISBET, University of Aberdeen

April 1971

SUMMARY

The Schools Council is the major curriculum body in England and Wales. It is a unique and somewhat anomalous newcomer to the English education scene, which had always prided itself on the extent of its decentralisation, and the autonomy given to teachers, above all in curriculum matters.

After a false start which was felt to be too great a threat to this autonomy, the Council was finally set up in 1964 with an extremely elaborate constitution designed to prevent it becoming a curriculum dictator. Since then it has been responsible for 140 development projects covering virtually all aspects of primary and secondary school curriculum. These have the force only of suggestions for teachers; they are in no sense mandatory. They range from a simple team-teaching trial involving the secondment of one teacher, and some secretarial help, to the £831,000 project for developing materials in a variety of media for teaching modern languages to 13 to 16 year olds. The total cost of the Council's activities is around £1 million a year, out of about £200 million a year spent by this country on education as a whole. Two Schools Council projects are described in detail by the author.

Besides its projects and the great amount of thought and discussion on curriculum reform which they have generated, the Council has also been responsible for two further developments. First, it has pursued reforms in the public examinations system which had been begun by the Secondary Schools Examinations Council and the Curriculum Study Group, both of which the Council superseded. And second, it has encouraged the establishment of teachers' centres.

Teachers' centres, in the author's view, could become this country's most important instrument of curriculum reform. There are already 500 of these throughout England and Wales, varying from barely equipped spare rooms in schools, to lavishly equipped buildings with full-time staff. All are places where teachers meet formally and informally to discuss and hear about new curriculum ideas. All are set up by local education authorities over which, characteristically, the Schools Council has no direct power.

Although the local education authorities are represented on the 52-strong governing body of the Schools Council, and although they supply half its annual budget - the Government pays the other half - they have no more direct control over it than it has over them. Likewise the Government, which merely nominates four Council members, and appoints the chairman. For the Council's constitution was expressly designed to preserve the principle of teachers' autonomy by giving teachers a majority on the governing body and on all of the Council's 30 committees except two - finance and publications. The teacher representatives are nominated by the teachers' organisations, among which of course, the National Union of Teachers, being the largest, has much the biggest voice.

This deliberate attempt to construct a truly democratic body has been criticised by many as too cumbersome a machine for the urgent curriculum needs of today. There are up to 500 committee meetings a year in the Council's headquarters. Specialists who have worked for months in their chosen field are not infrequently forced to abandon their labours to committee censure. Teachers complain that Council publications are too vague as a result of this process. On the other hand, there are complaints that the teacher unions have too much power inside the Council, especially given the fact that their own internal democracies may not be working too well. And, on top of all this, there is a widespread feeling - among Council members as well as others - that Council publications are not getting through to ordinary teachers, too many of whom still suspect that the Council is really an instrument of centrally imposed curricula.

But these criticisms, the author feels, have begun to be met by the Council. Over the past three years it has concentrated more on spreading information about projects already produced - by, among other things, a termly journal sent to all schools - than on commissioning new ones. And he suggests the Council may well, in the near future, have won enough trust and respect to allow its links with teachers in schools and in colleges of education to become even more positive and direct.

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ACKNOWLEDGEMENT

I should like to record my sincere appreciation of the frank and friendly assistance generously given to me at the Schools Council and at other institutions which I visited, during the whole period of this case study.

JOHN NISBET
Aberdeen, April 1971

Chapter I

HOW IT STARTED

The origin of the Schools Council can be explained at different levels - as a response to social and economic pressures affecting many of the developed countries in the period between 1955 and 1965; or as a sequence of events in England which gave the Council certain special characteristics; or in terms of specific initiatives by individual persons at the centre of the educational system.

The first of these, the pressure of social and economic change, is the aspect which has been emphasised by the Council itself in its own reports, and by others who have written on the subject of curriculum reform, both in Britain and in other countries. It is well summarised in a report (1) by the Department of Education and Science, describing the Schools Council:

> "In this as in many other countries there has been a growing consciousness of the need to reappraise syllabuses and curricula. Until comparatively recently changes in the school curriculum have taken place only through the slow spread of ideas among teachers (helped by the efforts of H.M. Inspectors) or through the work of committees set up for some specific purpose. The rate of change did not keep pace with the needs of the times or provide a speedy response to developments in particular branches of knowledge or to changes in the general view about the aims of education. The Schools Council for the Curriculum and Examinations - or the Schools Council as it is now generally called - grew out of a recognition by all branches of the education service that co-operative machinery was needed to organise a more rapid, and more effective, response to these changes."

Science was the branch of knowledge where the need for reform of syllabuses was most obvious. Rapid developments, both in pure science and in the field of technology, had rendered much of the old curriculum clearly out of date, and teachers in the schools lacked the facilities and the time to undertake the task of revision. In the USA the forming of the Physical Science Study Committee in 1956 may be taken as the start of the movement for curricular reform. In England the Association for Science Education provided a channel for Science teachers to express their dissatisfaction with syllabuses. This Association was influential in persuading the independent Nuffield Foundation, a charitable trust, to initiate the first of a series of substantial curriculum development projects in December 1961. Within one year the Nuffield Foundation was financing curriculum studies to the amount of £250,000. Other areas of the curriculum were also giving cause for concern: mathematics and the humanities, for example, were among those singled out in the Newsom Report (2) in 1963 as requiring special attention. The increasing numbers of pupils in full-time education - and particularly the trend towards a longer school life and the attempt to extend equal opportunity to under-privileged sections of the community - resulted in a situation where the traditional curriculum was unsuited to many secondary school pupils. The increasing cost of education also led to concern that resources should be used effectively. Governments were beginning to use more sophisticated planning techniques, which indicated a need for trained manpower which the educational system was ill prepared to meet.

In England and Wales the annual budget of the National Foundation for Educational Research, even in 1964, was only £84,000. One critic noted that a larger sum was being spent on research in glue than on research in education. But the need was for reform as well as for research, and particularly for an organisation which would ensure a continuing review of all aspects of the curriculum in schools.

The Ministry of Education was in a weak position: there was little positive action or initiative which it could take. For the firmly established tradition of decentralisation in the English system excluded the Minister from influence in the curriculum, and gave control to the local education authorities. The local authorities had not in fact exercised control over the curriculum, but had given wide freedom to individual head teachers to decide on syllabuses, timetables, books and equipment. This freedom was jealously guarded. Bitter memories still lingered of the domination of elementary schools by the system of Payment by Results, introduced a hundred years previously and abandoned before the end of the 19th century, when school finance was decided by inspectors who tested pupils against prescribed standards of achievement. As far back as 1907, when the Board of Education (as it was then called) had issued a manual of teaching practice, it was given the gentle title of 'Handbook of Suggestions for the Consideration of Teachers and Others Concerned in the Work of Public Elementary Schools'. This title was used in subsequent reprints up to 1947. The preface contained the assurance:

> "The only uniformity that the Board of Education desire to see in the teaching of public elementary schools is that each teacher should think for himself, and work out for himself such methods of teaching as may use his powers to the best advantage and be best suited to the particular needs and conditions of the school."

In the secondary grammar schools the freedom was somewhat illusory, for the syllabuses of the General Certificate of Education (GCE) examinations largely determined what was taught in the schools. Even here, the central authority had little influence, for the examinations were conducted by nine examining boards (eight of these being university boards), coordinated through the Secondary School Examinations Council. Many teachers, and pupils too, spoke of the tyranny of external examinations and resented their restricting influence.

To understand how the Schools Council was incorporated in this decentralised system, it is necessary to consider the explanation at the second level which was mentioned at the start of the chapter - the sequence of events which led to the setting up of the Council. If told in full, this would make a story of absorbing interest: how a bold (or perhaps rash) initiative was modified to preserve the accepted distribution of responsibility within the system; and how subsequently an organisation has evolved which has a greater potential for change than could even have been achieved by the earlier more direct effort. The story is as yet unfinished. But perhaps a brief outline can convey something of the interest.

Although the teaching in secondary grammar schools was very much under the influence of external examinations, the secondary modern schools (for the pupils of average and below average ability, as it was understood at this time) had originally been envisaged as an area free from examinations of this kind. Even in 1959 the Crowther Report (3) had commented:

> "The most promising part of the educational system for experiments in new methods of teaching ... will be the middle streams of (secondary) modern schools - but only if they are left free from the cramping effect of a large-scale external examination."

Already in the 1950s pressures outside the control of the schools had encouraged a growing number of pupils in the secondary modern schools to enter for GCE examinations, previously limited to and designed for the grammar schools, or for examinations set by various other external institutions. It was to meet this situation that the coordinating body, the Secondary School Examinations Council, appointed a committee in 1958 to study the problem.

In July 1960, the report of this committee (the Beloe Report (4)) proposed a 'new pattern of examinations' for pupils aged about 16, for the award of what was later to be called the Certificate of Secondary Education. The solution which the committee offered to the problem of external control of the curriculum was 'teacher control' of the examinations.

> "Since the primary object of the examinations as we envisage them is to serve a constructive educational purpose in the schools themselves, it is in our view fundamental that the teachers in the schools which will use them should play a major part in the arrangements. This has been our starting point in consideration of the machinery for providing the examinations." (paragraph 116)

Seeing that their proposal was likely to raise complex technical problems in examining and in establishing national standards, the Report also proposed the formation of 'a small but highly qualified research and development unit'.

> "We have in mind an ad hoc group of five or six people knowledgeable about examinations and in close touch with current practice in the schools. We are clear that, in the early years of a system of examinations designed to be sensitive to the needs of the classroom in the way we propose, many new problems will be thrown up demanding continuous thought, observation and experiment. The group should therefore be continuously available; it would seek help wherever it was to be found ... The personnel for this unit might be made up partly of members of H.M. Inspectorate ... and partly of teachers or organisers with appropriate experience seconded by local authorities." (paragraph 127)

The model which may have been in the minds of the Committee was the Development Group of the Architects and Building Branch of the Ministry of Education. This unit had been formed in 1949 when cost limits were introduced for school building. The Group's first publication was a review of enterprising work in building by local authorities in the immediate post-war years; and subsequently it based its designs for schools on observation by teams who visited classrooms to study teachers' methods - in particular looking for imaginative improvisation by teachers in old-style schools. Their findings were made available to local authorities for the design of new schools, and met with very favourable response. (A description (5) of the work of the Development Group is to be found in the Introduction to Building Bulletin 36). A key to the success of this small unit was its joint direction by a professional and an administrator - an architect and a civil servant, who worked closely together, sending teams into the schools to observe and test out new ideas.

Whether or not this was the model for the Beloe Committee's recommendation, it was certainly the model for the Curriculum Study Group, the unit which the Minister of Education set up in February 1962 to carry out the task which the Beloe Report had outlined. The task, in the meantime, had enlarged significantly, for at the end of 1961 the Nuffield Foundation had announced its programme of curriculum development projects and the Curriculum Study Group was given a wider remit: it was to concern itself with the curriculum as well as with examinations. 'The main job of the unit', as the Ministry's Permanent Secretary explained in a letter on 9 March 1962,

> "will be to improve the value of the service that the Inspectorate and the Department have for a long time sought to offer in the field of curriculum and examinations ... The appropriate teams within the new unit will place their findings at the disposal of the education service as a whole or of the appropriate body within it, but there will be no change in the present pattern of relationships between the various interests concerned."

The letter made specific reference to the analogy of the Development Group in Building.

> "But, as with the work of the Development Group in the Architects and Building Branch, we shall be equally pleased if the effect is to stimulate constructive criticism and new thinking

> ...in other quarters. And we shall also follow the practice of the Development Group in one other important respect: most of the studies mounted by the new unit are likely to involve close and continuous collaboration with local education authorities, practising teachers and others concerned to improve the quality of the education service."

A further similarity was that the Curriculum Study Group would be under joint leadership of a senior inspector and an Assistant Secretary from the Ministry. This pattern of joint responsibility was to be followed throughout the unit, teams being staffed jointly by inspectors and administrators. Perhaps it was not just coincidence that the occasion when the Minister announced the formation of the new unit was the opening of a new school building in Hertfordshire.

A Development Unit for school building was a different matter from a Curriculum Study Group. School building was mainly the architect's responsibility, and the Unit allowed the interests of teachers to be considered more effectively. Capital investment in buildings was also accepted as a responsibility of central authority. The curriculum was the responsibility of teachers and local authorities, and to some of them it seemed that they had trouble enough already with suggestions from psychologists, sociologists and other so-called experts without this new expert group who might have much greater power. The Permanent Secretary gave assurances in three separate parts of the March 1962 letter that the Ministry did not seek power.

> "Our aim is to give a service, for those who want to use it, and to provide a chopping block for those who find stimulation for their own thinking in reacting against the findings of others working in the same field. But we have no intention of disturbing in any way the present pattern of powers and responsibilities in the area of curricula and examinations, and we shall constantly seek to ensure that the voice of the new unit is heard only as one voice amongst others, invested with no greater authority than is merited by the quality of its contribution to the general store of knowledge and experience."

In spite of these assurances (or possibly because of them), the announcement was received with suspicion by the other partners in the education service, the local education authorities and the teachers' associations. The statement that the voice of the new unit would be 'invested with no greater authority than ... merited by the quality of its contribution' was a little too innocent: an expert group operating within the central authority was likely to become something more than just 'one voice amongst others'. Hostility to the idea developed slowly but steadily. In the journal Education (page 549) on 23 March, Sir William Alexander, Secretary of the Association of Education Committees, complained that there had been no prior consultation on the formation of the Group, and he pointed to the danger of control by central authority. The National Union of Teachers likewise was concerned about the way in which the new unit would operate.

> "We would particularly deplore any action which would diminish the professional responsibility of head teachers ... or impose any limitations on the choice of textbooks and equipment ... Teachers should be consulted before any changes are made or findings are published ... Teachers should participate in the working out and operation of new programmes."

The build-up of opposition to the Curriculum Study Group throughout the summer of 1962 may be better understood if it is set against the wider background of the educational controversies of the period. At this stage it is appropriate to turn to the third level of explanation to which reference was made at the beginning of this chapter - the influence of individual personalities. Manzer, in his analysis (6) of the structure of educational politics in England, comments

> "Decision-making in the development of educational policy is traditionally by agreement with the local authorities, the teachers' organisations and, where relevant, the churches. The "friendly and conspiratorial" triumvirate of Sir Percival Sharp (Secretary of the Association of Education Committees, 1925-45) Sir Maurice Holmes (Permanent Secretary of the Board of Education, 1936-45) and Sir Frederick Mander (General Secretary of the National Union of Teachers, 1931-47) entrenched a pattern of relationships which has dominated policy development ever since." (page 8)

The 1950s, however, saw a weakening of this partnership through a succession of controversies - teachers' superannuation, the 'block grant' system of financing local authorities and the Minister's intervention in salary negotiations in 1959.

> "Throughout the 1950s the factors which had supported the existing distribution of power after 1944 were steadily undermined ... Gradually, new men came into the Ministry who did not share the tradition of partnership of the inter-war period. They read the Education Act and wondered why the Ministry did not exert a more positive influence. The rapid expansion of the educational system compelled officials to adopt a more critical attitude to the allocation of resources to education ... Beginning in the late 1950s the Ministry attempted to assert more positively the needs of the community, as it interpreted them, in the formation of national policy." (pages 24-25)

This is, of course, a speculative interpretation of events, but it is supported by the statement of the Minister of Education, Sir David Eccles, in the parliamentary debate on the Crowther Report in 1960, when he referred critically to the 'secret garden of the curriculum'. Education debates, he said, were too often concerned exclusively with questions of buildings or organisations: he would 'try to make the Ministry's voice heard rather more often and positively, and no doubt more controversially', on what was taught in schools and colleges. One of Sir David Eccles' private secretaries was Derek Morrell, who also served in the Development Group of the Architects and Building Branch, was Joint Secretary of the Curriculum Study Group, and one of the first Joint Secretaries of the Schools Council. Morrell's views on these matters - a very different interpretation from Manzer's - can be found in a speech he made many years later, only a few months before his tragic death. In May 1969, in an address to his colleagues in the Association of First Division Civil Servants, he said:

> "Our ethic is simply stated. We stand committed to neutrality of process. We profess that public power is not to be used to further the private purposes of those to whom it is entrusted ... The valid application of the principle of neutrality of process is to evolve a set of procedural rules such that those who are not in themselves value-neutral - because they are human beings with needs and aspirations - can, by accepting those rules, contribute to a process which has public rather than private outcomes ... But ... we still do not accept the reality of our individual humanity: we have not therefore evolved rules of procedure such that we can contribute all that we are to a process having public and not private outcomes. The

> "price which we and the public pay for pursuing a myth is heavy ... Speaking personally, I find it yearly more difficult to reconcile personal integrity with a view of my role which requires the deliberate suppression of part of what I am. It is this tension, and not overwork, which brings me, regularly, to the point where I am ready to contemplate leaving a service which I care about very deeply ... But the price which the public has to pay is even heavier. For the part of ourselves which we are asked to suppress is the creative part. There is nothing more individual than an idea. No committee ever has, or ever will, form an idea. It can only adopt one. Ideas are formed by individuals from the depths of their personalities: they have to be felt before they can be brought to consciousness. And they often have to be sustained over a long period, not infrequently with a modicum of passion, before a process of critical appraisal by others defines their realisation as a valid object of public policy."

This extended quotation has been given because it is not readily accessible, and because the views expressed throw a different light on the elaborate system of committee control devised for the Schools Council by the Lockwood Committee. The Curriculum Study Group was an initiative by central authority. The Schools Council which replaced and absorbed it is a partnership of central and local authorities and the teaching profession. This is the meaning of Manzer's cryptic conclusion:

> "The Schools Council may be regarded as an assertion of orthodoxy and, quite possibly, an opportunity lost." (page 97)

The best evidence of Morrell's creative contribution to the thinking which lay behind the setting up of the Curriculum Study Group is to be found in his address (8) to the Annual General Meeting of the National Foundation for Educational Research, in October 1962. The invitation to him to give this address was a shrewd initiative - on whose part we do not know - and the speech (subsequently published in February 1963 (7)) is a key document in the account of curriculum development in England. Stressing that these were 'provisional, and entirely personal, thoughts', he started by acknowledging 'reasons why society should extend to the teachers a large measure of freedom to decide how and what to teach'. But if teaching was to be effective,

> "every teacher must receive or acquire as part of his stock in trade a "package" of knowledge about the curriculum, and about teaching methods, which becomes the norm from which, if he is a good teacher, he departs in the interests of meeting individual needs ... To my mind, the crucial contemporary question in attempting to discern the reality behind the slogan "the freedom of the teachers" is, therefore, this: how, and by whom, should the packages be created, and how and by whom should they be kept up to date? ... It is not self-evident that this is a job that the teachers can claim to be exclusively their own. It involves, amongst other things, defining and interpreting society's terms of reference for the education service, and it can be argued that it should be shared with those whose special forms of skill and experience, or representative status, qualify them to express society's contemporary needs, and to discern trends in social, economic and technical development. And this argument gains strength if it can be shown that the teachers are not producing a sufficient supply of packages relevant to society's needs, or that the teachers are finding it difficult to control the outside pressures that tend to distort the curriculum in sectional interests.
>
> "Unfortunately, there is today some evidence that this is what is happening. There is a growing recognition that the teachers need more help if they are to create, with the speed now required, new packages relevant to society's needs, and are to preserve the balance of the curriculum in the face of growing pressures from a great variety of sources."

The question with which he concluded his address was:

> "How can we best give form and shape to a genuine partnership between the various agencies concerned, which will increase the speed and relevance of curriculum development, and base it more soundly on an increased volume of research, without in the process surrendering or even endangering what is essential to a free society in our tradition of freedom for the teachers in curricular matters?"

Two weeks later, in Education, Sir William Alexander gave his answer to this question:

> "It is a matter of urgency and importance that the work of the Curriculum Study Group should be brought effectively under a representative body in which local education authorities and the teaching profession are in membership."

This would give its work the 'measure of independence from the Minister himself which is essential'.

When the speech was published in Educational Research in February 1963 an editorial summarised 'three questions of policy':

> "1. Is there a real need for overall leadership to be given to the schools in matters of curriculum design and the related matter of examinations?
>
> 2. If there is such a need, from where should this leadership come and how should it be organised without damage to the essential liberties of the schools? Should it be manifestly independent of authority, or should it come from an official body with the danger that it may appear to be mandatory?
>
> 3. Should the results of the study of curricula and of examinations, by whomever they be undertaken, be subject to rigorous experimental evaluation by an independent body and, if so, how should this be done?"

Comments made at the N.F.E.R. Annual General Meeting 'had emphasised both the importance of the problem, and the controversial nature of the approach'. Five prominent educationalists were therefore invited to contribute observations on the address, and Alexander used the occasion to repeat his suggestion of a "representative body to which the Curriculum Study Group will be responsible."

This was the line of action which was followed up. In May 1963, the Minister of Education proposed a meeting with teachers' associations and local education authority representatives, to discuss setting up 'a new Schools Council for the Curriculum and Examinations', to which the services of the Curriculum Study Group would be made available. The memorandum prepared in the Ministry for this conference repeated Morrell's argument of October 1962 in a rather stronger and less tactful form. Among the phrases which gave offence were the statements:

> "This long tradition of substantial laissez-faire in curricular matters has created something of a vacuum within the school system ... In this situation, the doctrine of the freedom of the

> "teacher as traditionally accepted is becoming more and more the means whereby the teachers are forced to respond to events they cannot control."

The annotated agenda accompanying the papers showed clearly that the Curriculum Study Group was envisaged as continuing in existence as one of the forms of full-time professional support for the new Council.

The conference was held in July 1963, and (to quote one of the participants):

> "After a morning's discussion, agreement was reached in only one respect - that there were problems which warranted careful examination and that a working party should be set up to examine all these problems and report back in due course."

The working party was promptly appointed, with Sir John Lockwood, chairman of the Secondary School Examinations Council, as its chairman. Skilfully he steered the committee through a succession of difficulties (including at one stage a threat of withdrawal by one of the parties) to an agreed report published in March 1964, just in time for the Easter conferences of the various teachers' associations.

The proposals in the Lockwood Report (8) were substantially different from the "small but highly qualified research and development unit" which had been originally proposed. A Schools Council for the Curriculum and Examinations should be established, with 52 members appointed by teachers' associations, local authority associations and other bodies (including 4 appointed by the Minister of Education), a Chairman appointed by the Minister, and provision (still not fully implemented) for 14 further co-opted members. It was felt 'appropriate ... to have a majority of members representing the schools'. The new Council would take over the work of the Secondary School Examinations Council and the Curriculum Study Group. Terms of reference were drafted, giving pride of place to 'the principle that each school should have the fullest possible measure of responsibility for its own work'. A constitution and method of working, 'designed to protect the freedom of the member interests', were outlined in detail. Staff were to be recruited by short-term secondment, since it was 'clear that a career secretariat and study team organisation is not desirable'. The new body would be 'a free association of equal partners, retaining unimpaired their own rights of decision within their own areas of responsibility'. (This phrase occurs twice in the report). The Council 'should have control of its own work' and 'be free to select its own subjects of study'. The Minister's contribution was to pay the staff, provide accommodation and supply finance for research and development work.

The conference was reconvened in July 1964 and approved the recommendations unanimously. The Schools Council held its first meeting on 26 October 1964, with Sir John Maud, Master of University College, Oxford, as its Chairman and D.H. Morrell and R.W. Morris, HMI, as Joint Secretaries.

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Chapter II

PURPOSE AND PRIORITIES

The Lockwood Report set out precise terms of reference for the Council, and these were adopted without alteration. The full text extends to 23 lines of print. The opening paragraphs state:

> "The objects of the Schools Council for the Curriculum and Examinations are to uphold and interpret the principle that each school should have the fullest possible measure of responsibility for its own work, with its own curriculum and teaching methods based on the needs of its own pupils and evolved by its own staff ...
>
> In order to promote these objects, the Council will keep under review curricula, teaching methods and examinations in primary and secondary schools ..." (paragraph 19)

The individual responsibility of the school is thus placed first, and the task of reviewing curricula and examinations is firmly subordinate to that primary objective. In the report, no doubt is left about this:

> "The results of the Council's work should possess only their own inherent authority ... (It should) produce recommendations which ... had taken all relevant factors into account and were agreed by representatives of all the member interests concerned. But they would still be recommendations, addressed to those who have their own area of responsibility, and who must be free to take their own decisions ... In particular, the Council would neither publish, nor approve, anything in the nature of a text book." (paragraph 21)

It is easier to identify from this what the Council is not to do than to establish what precisely it is intended to do. Surprisingly, the paragraph which follows the one quoted above, begins: 'This method of working would not, in our view, render any of the Council's work ineffective.' But the argument is developed as the paragraph continues:

> "On the contrary, we are recording our belief that if new ranges of choice are made available, the schools will freely select for themselves any approach to syllabus content or teaching methods which clearly offers a better educational solution than that previously available. The need for a more rapid response on the part of the schools to changing educational needs is not in doubt. But there is no need to transfer responsibility to the centre in order to bring this about. The response will be freely made by the schools themselves once their room for manoeuvre has been increased, and once the teachers are enabled to play a bigger part in research, and in the development of new ranges of professional choice." (paragraph 22)

This became, and remains, a guiding principle in the Council's philosophy. It has two elements, freedom of choice for the schools and the involvement of teachers in the work. Thus the aim is to widen the range of choices open to the teachers, and to ensure that the choices offer[illegible]ndly developed from the actual requirements of the teachers. This in turn involves two further principles: an extension of the idea of partnership in responsibility for education, and a development of standards within the teaching profession so that teachers can enter fully into their share of the responsibility. In short, freedom and involvement; and partnership and professionalism - 'a witness to a certain style of running an educational system', as it has been described (1). The speech from which this last quotation is taken - an address to a national conference in 1970 by Geoffrey Caston, Joint Secretary of the Schools Council at that time - gives a clear exposition of this philosophy of action. He described the Council as

> "a deliberate resort to democracy, an attempt to secure the commitment of teachers by involving them decisively at every stage in the innovation programme. This includes the making of decisions at national level on policy and on the spending of money, and at local level in the management of teachers' centres and local development groups ... Somehow we were going to dispel the notion that teachers were being forced to dance to a tune composed and played by people who knew nothing about their problems ... A teacher who feels professionally coerced is most unlikely to be able to contribute to a productive relationship with his pupils. They cannot learn self-confidence from teachers who have none.

> "... The Council has no authority over teachers. It may - and I hope it does - sometimes carry a certain amount of professional consensus, and a great deal of the kind of authority which comes from organised knowledge. But not authority in the Oxford Dictionary definition, "the right to enforce obedience". It cannot instruct anyone to do anything. To my mind - though not always to those who command a majority in our ranks - this is a great source of strength. It means that the use of any of the materials or methods which the Council may commend requires a positive act of agreement by the teachers concerned. It is an educational axiom that if individuals do things because they have chosen to do them they do so with infinitely more effect than if they are passively acquiescing in authority. It is true for teachers as for their pupils. "The right to enforce obedience" has no place in an educational process, either between teachers and organisations, or between teachers and pupils. Once coercion creeps in, education begins to go out."

The parallel is clear between this 1970 statement and the purpose outlined in paragraph 22 of the Lockwood Report. In the early years of the Council's work, however, the force of this argument was slow to be accepted by the teaching profession. Teachers were still inclined to see a sinister power in the Council and its secretariat - a correspondence in the columns of the educational press in 1967 repeated all the old arguments. To some, these fine ideals were seen as little more than a rationalisation of the uncertain restrictions which had been imposed on the Council at its birth: since the organisation was to be subject to these democratic restraints, one might as well try to make a virtue out of necessity. But it was much more than this. The way in which this principle shaped the activities and structure of the Council will be discussed in later chapters. Briefly, its effect was shown in the committee structure, the staffing and in the pattern of the Council's development projects.

The Council had to be large, so that all sectors of the educational system could be represented. Its work is therefore done through a complex structure of committees, initially 22, now 30, on all of which (except for the committees responsible for finance and publications) teachers form a majority of the membership. Almost all the staff of the Council (approximately 40 senior staff and nearly 100 executive and clerical staff) are appointed on secondment from other educational organisations for periods of about three years. The turnover is a guarantee against control by a career secretariat, and ensures that personnel return to their organisations with a knowledge of the Council and its work. There is no Director of the Council: joint secretaries - at first two and now three - share the responsibility for administration, and the Director of Studies, head of the small research team, holds a joint appointment as Professor in the University of Reading. Teachers are directly involved in the development projects, both as members of the teams and in trying out new materials in schools. And the formation of groups of teachers to discuss issues arising from the projects, is an important aspect of development work. The criterion for deciding priorities in development work is the value of the work to the teacher in the classroom.

The policy gives the Council a place in the educational system which is not too different from that of the conventional Civil Service department, in which an administrative service supplies the basis for decisions by elected or nominated representatives, while the administrators are expected to maintain a personal neutrality. Insofar as the Council is seen in this way there is a model from which Council and Committee members and Council staff derive some idea of the roles they are expected to perform. However, it may not be an entirely appropriate model for the work to be done. Unfortunately, it also encounters the customary criticisms of the Civil Service - indecisiveness, delays, endless committees and excessive paper work. The atmosphere of the Council's offices itself creates a special problem, for the interest of the work generates a keen sense of involvement. For senior staff, too personal an involvement may arouse antagonism from committees: Morrell's dilemma of reconciling neutrality of process with creative ideals has to be constantly resolved. At a more junior level it is easier to accept the principle of teachers' involvement in projects than to accept committee judgments on a topic to which an individual member of staff has given months of careful thought. However, the attitudes arising from these restraints are precisely the reason why the idea of a central innovatory organisation was regarded with such caution in England. In the speech which has already been quoted above (1), Caston concludes by referring to three 'enemies' of freedom ('and there is a bit of each of them in every one of us', he says); first, the lethargic; second, the complacent; and third -

> "The dirigistes or the technocrats. They have worked out just what the needs of the nation are in trained manpower for 1988, and they know that in Sweden research has proved that you can teach an infant Boolean algebra by the time he is three years old ... The most important thing for them is to set a few really

> "clever people to work compiling programmes and work cards that cannot be fouled up by the teachers who operate them. Even if they do not go to that extreme the one thing they cannot stand is chaos. So let things be arranged so that somebody can sit at the centre and make quite sure that everybody in education does what is best.
>
> As an ex-Whitehall boffin I suppose I might have been one of the third group of the enemy myself. But if so, my spots have changed. Education is power over individuals and no one is worthy of enough trust to be given that kind of overall responsibility, So we must disperse power, disperse responsibility, and find ways of providing for all of us alternative means of responding to change. From these we can choose the one that will suit our own personal style and serve the interests of the pupils who are in our care."

A brief outline of the Council's work from 1964 to the present may help to amplify this very general discussion of the basic policy which the Council has adopted. One small feature which illustrates the growing acceptance of the Council and the fading of the suspicions with which it was originally regarded is seen in the revised constitution which was adopted in 1967. In this revision, a more logical order was followed in setting down the objects of the Council. The reference to the 'general principle that each school should have the fullest possible measure of responsibility for its own work' now comes after, and not before, the definition of the Council's object as -

> "The promotion of education by carrying out research into and keeping under review the curricula, teaching methods and examinations in schools, including the organisation of schools so far as it affects their curricula."

Initially, the Council took over certain commitments from its two predecessors, the Curriculum Study Group and the Secondary School Examinations Council. The Curriculum Study Group had been acting as a service unit, arranging trials in schools for the development projects set up by the Nuffield Foundation in science, mathematics and foreign languages, and later in humanities and classical languages, the application of linguistics to English language teaching and the use of technical and other resources for learning in schools.

Gradually the Council took over responsibility, in part or in full, for these projects. In addition, at its very first meeting, the Council decided to initiate three new programmes, which remained the core of the Council's development work for the first three years at least:

1. Research and development in the teaching of English;
2. Preparations for the raising of the school leaving age, a programme designed to help schools;
3. Sixth form curricula and examinations.

In the field of examinations, the Council took over 'a solid legacy of work in preparation for the new Certificate of Secondary Education and of preliminary thinking about the development of sixth form examinations'. (2) In the English system of secondary education, examinations have a particularly marked influence on the syllabus in each subject. It is not too much of an exaggeration to claim that 'whoever controls the examinations controls the schools'. Thus it is important not to overlook the substantial influence which the Schools Council was able to exert through its position in the examination structure.

The first examinations for C.S.E. were offered in 1965 by 9 of the 14 C.S.E. examining boards to about 66,000 candidates, and the numbers grew rapidly in subsequent years. To provide a check on national comparability of assessment in these new examinations, the Council and the National Foundation for Educational Research jointly operated a procedure in which aptitude tests were used to indicate probable distributions of grades on a national scale of assessment. This testing procedure was widely resented by teachers, and as a result, priority was given to devising a comparability procedure which did not involve tests, in preference to continuing work on attempts to refine the tests which were being used. A series of experiments in cross-moderation of marks proved successful, and the aptitude testing was discontinued.

For the already existing G.C.E. examinations, the Schools Council continued the general coordinating functions which the Secondary School Examinations Council had performed. But, as the report (2) on the first year's work made clear, it had a wider, and ultimately more important role:

> "This is to secure a happier marriage than in the past between the actual work of the schools - which must constantly develop

> "in response to new needs and new insights into the learning process - and the examinations which, in the process of assessing that work, can all too easily stand in the way of necessary innovation ...
>
> If the schools are to respond to the needs of individual pupils, and to changing social and economic needs of the community, they require freedom to innovate and to adapt. But the users of examination results - the universities and colleges, professional bodies, commerce and industry, indeed the candidates and their parents - need order; they need to be assured that the examination results flowing from different schools and different examining boards convey meaningful, and reasonably comparable, information about pupils' achievements so far, and about their potentialities for the future.
>
> The main task of the Council is therefore to assist in achieving a new reconciliation of freedom and order, capable of regular adjustment as circumstances change."

It will take time to achieve this broader aim, says the report. In fact, the attempt to reform the examination system has not yet succeeded. Two main reforms are sought: first, a single examination at age 16, to replace C.S.E. and G.C.E. 'O' (Ordinary) level; and second, a new pattern of 'second' examinations (i.e. after the 'first' examination at 16), providing an instrument for the selection of candidates for higher education, but covering a wider range of study and of ability than the present G.C.E. 'A' (Advanced) level. By contrast with the indirectness of the Council's approach to curriculum development, this is a more positive line. But the Council has no power, and can work only by discussion and agreement. This was demonstrated only too clearly in 1970 when proposals for a new examination structure (the 'Q and F proposals'), resulting from discussion initiated in November 1966, were rejected, and the whole question was referred back for further consideration. In 1965, Sir William Alexander had written:

> "There is no question of the Schools Council seeking control over the individual examining boards, nor must there be any question of the boards seeking to control and direct the work of the individual schools. The idea that we are verging on a battle for power must be removed."(3)

Though the Council is not a battle-ground, it is a meeting-point for the various bodies, and inevitably there is a certain clash of interests.

Finance is not obviously connected with policy, but the Council's priorities in development have been influenced by the financial considerations. The initial programme which the Council undertook required substantial funds. To quote the 1968 Report, 'Soon after its establishment, the Council realised that it could not do its job without a considerable increase in the financial resources at its disposal'. Finding adequate funds therefore became a matter of high priority almost from the start. As explained in the previous chapter, the Department of Education and Science (the name now given to the Ministry of Education) had undertaken to pay accommodation and staffing costs and to commit an annual sum for the Council's research and development work, rising to £100,000 in 1968-69. By the standards of investment in educational research in 1964 this had seemed a generous figure, but it did not match the Nuffield Foundation's investment in its projects and was clearly inadequate to provide for work on the scale now envisaged. Before the end of its first year, the Council had begun negotiations for new arrangements for financing its work.

Details of financial negotiations often go unnoticed and unrecorded. In this case, however, they resulted in a major advance in policy. The local education authorities finally undertook to share in the cost, matching the total contribution from the Department of Education and Science with an approximately equal amount - £385,000 in 1967-8, rising to £700,000 in 1968-9, giving a total of £1.25 million. (Current financial arrangements are described in Chapter IV). Two of the 'partners' thus finance a council in which the third partner, the teaching profession, has a majority representation. The decision by central and local authorities to invest in the Council in this way opened up a new scale of operation. It may not be too much to say that this decision and the agreement on the Lockwood Report represent the two major events in the creation of the Council.

As a result, by the end of the first three years, the Council had already commissioned 61 projects costing, in all, over £2 million. The total outlay from 1964 to 1971 on 140 different projects and investigations, ranging in cost from nil to £831,000, amounts to a total of £4,300,000. .

The period to the end of 1968 may be described as the initial phase of the Council's work, when the main purpose was to build up a high level of activity in curriculum development. The priority areas had originally been designated as English, preparation for the raising of the school leaving age, and the sixth form in secondary school. To these, primary education had been added, and new projects were started, or taken over from the Nuffield Foundation, in humanities, modern languages and technology, to mention only a few of the most expensive. So much was initiated that it is difficult to distinguish any clear priorities.

In 1968, the emphasis began to change. Of course, the change was gradual and even in 1970 new projects were still being commissioned on a substantial scale. But 1968 is taken as the beginning of the end of the first phase, because it was in October of that year that the Programme Committee held a detailed discussion of priorities. This Committee had been established as a result of a review of the constitution, which the Lockwood Report had suggested should be held after the first three years; it had a majority of teacher members and took a key position in the Council's organisation, with responsibility for determining policies, priorities and programmes. The Programme Committee recommended that the Council should now concentrate on consolidating successful work in hand, even if this meant deferring new projects. For example, as some of the projects were now nearing completion, it was important to make sure that their results were fully available to teachers. After all, the criterion which the Council had resolved to adopt in judging the suitability of a project was its probable value to the teacher in the classroom. It was therefore not enough just to develop new materials and new methods, and publish them, and then to wait for teachers to adopt them. Nor was it merely a matter of bringing new materials to the attention of teachers: there was reason to believe that the output of new ideas from projects was near the limit of what teachers could reasonably be expected to absorb. Means had to be found, therefore, of helping teachers to incorporate the results of development work into their teaching.

It will be seen that this is an extension of the principle which was discussed in the first part of this chapter. Curriculum development is not achieved by changing syllabuses: one must also change the teacher who is to teach that syllabus.

Thus, a project might require to be extended to allow the team to arrange facilities for teachers to receive training in the use of the new materials. Provision of this kind was already built into the development stage, while the project was under way; but there was a need for an 'after-care' provision when the project was completed and the project team was disbanded. A difficulty which arises here, however, is that teacher training is not part of the Schools Council's job: training is an area of provision clearly assigned to other institutions, and to a distinct branch within the administration.

This new phase, which might be summarised as the phase of consolidation in the Council's development, thus raises important issues which will be discussed more fully in the final chapter. It is linked with another of the decisions taken by the Programme Committee: recognition of the need for improved communication with teachers. To the average teacher, the Council appeared as a distant body. Suspicions still lingered, and public criticisms at teachers' conferences showed that teachers were not yet persuaded of the Council's purpose. (A motion expressing 'dissatisfaction' with the working of the Schools Council at the Conference of the Assistant Masters' Association in December 1970 was carried by 125 votes to 109.) The fact that the criticisms were often misinformed only underlined the need for improving communication. The introduction of Dialogue, a journal issued free once a term to all schools in the country, was one of the steps taken to meet this need.

Already, there are signs of the emergence of a third phase in the Council's work. Two of the themes which are likely to be of importance in the years ahead are examinations and the balance and integration of various subjects in the 'whole curriculum'. Both of these raise fundamental issues which may require a radically different style of approach. Whether the Council has secured the confidence and trust which will allow it to enter on this third phase is a question to which we shall return in the final chapter.

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Chapter III

STRATEGIES AND PROCEDURES

The 1968 Report of the Schools Council includes a chapter, 'What is a curriculum development project?' This chapter outlines the successive stages in a project, though it is acknowledged that not all projects would follow this pattern in detail.

1. Investigation - a review of current practice and a formulation of objectives.
2. Creation of new materials.
3. Experimental trial of these new materials in schools - at first in only a few schools, later more widely - with feed-back to refine and improve the new approach.
4. Diffusion - including the organisation of conferences and courses.
5. Evaluation - including the gathering of suggestions and criticisms which may provide the basis for fresh projects.

These are differing emphases, rather than successive stages. Stages 2 and 3, for example, overlap extensively; and in several of the projects one of the early appointments to the project team has been that of the evaluator. The intention is that evaluation should be integrated into all stages instead of being considered as an independent stage after the rest is finished. Thus the evaluator is brought into the discussion on objectives, the shaping of new materials and the arrangement of school trials. In this way he is better equipped to design an appropriate framework for the final evaluation. There are, however, examples of projects where evaluation has been done by an independent team.

In the design of new materials in development projects, attention is given to the choice of the appropriate media - print, film, picture, model and so on - and the balance between these different media. Media specialists are brought into the discussion at an early stage, and are not asked merely to provide an attractive 'wrapping' for a package whose content is already decided. In this and other ways, the 'classical' concept of curriculum development as a neat sequence of stages has been modified, and is seen rather as a sequence of changing emphases in the course of a project.

Thus it is possible to make a distinction between two different styles of project sponsored by the Council. Early investigations, particularly those initiated by the Nuffield Foundation, tended to be on the 'classical' model, with a small team of experts who had a fairly clear idea of the changes which were thought necessary and who provided most of the original ideas themselves, using the trials in the schools to check and modify these ideas. Later projects have tended to draw more widely on teachers' ideas, being started sometimes by forming groups of teachers to discuss current practice and objectives, and thus involving much larger numbers of teachers in a creative role. This procedure is justified on several grounds: first, that ideas emerging from actual classroom practice are more likely to be practical; and second, that the activity involved is itself an important part of curriculum change. Even if the project were not to proceed beyond this stage, it may be claimed that the stimulus from discussion and knowledge of differing practices would have a worthwhile effect. This point of view is summarised in the saying: 'The process is more important than the product.'

There is, however, a danger if this extreme view is accepted too uncritically. Educational innovation, perhaps more than any other activity, runs a risk of producing talk rather than action, and a project may readily be bogged down in a plethora of discussion and committees, which produce lengthy reports and little else. This applies particularly to discussion of objectives, over which much labouring to obtain a high level of precision may result only in a sense of frustration and a loss of the momentum which brought the discussion groups together. Some of those who have been through this experience quoted with approval the statement which appears in Curriculum Innovation in Practice (1) to illustrate the English attitude in contrast to the American:

> "I've always thought that to define the aims of education in general terms is more or less meaningless: to do it more precisely is downright dangerous."

One major point in the Council's strategy has been the encouragement of teachers' centres. The Nuffield Foundation, in its projects in mathematics, science and modern languages was instrumental in bringing teachers together. Local education authorities which became trial areas were required to provide centres where teachers could meet to discuss experiences, prepare materials and take part in courses. The Schools Council continued this policy of seeing centres where teachers could meet and work together as essential to its philosophy of curriculum review and development. Through the work of its projects, conferences and field officers the Council have continued to encourage the development of local groups and centres. The readiness of local education authorities to provide these centres is further evidence of the support which the Council receives. At the same time, in many areas teachers' centres have grown from the meetings of groups of teachers already taking place in their localities. The number of such centres has increased dramatically: few existed before 1964; by March 1969, there were 270; a year later, over 400; and now, almost 500. The growth of teachers' centres may eventually prove to be the most important ingredient in curriculum development. Insofar as the success of curriculum reform is to be judged by the involvement of teachers in the process, the existence of these local centres is clearly a crucial factor. In 1967 a Council Working Paper (2) was published urging the establishment of teachers' centres and suggesting guidelines. In 1969 three national conferences were organised in York, London and Cardiff, to encourage more areas to establish centres. Liaison with teachers' centres is an important aspect of the work of the Council's field officers (see Chapter IV).

Though the teachers' centre movement has great potential, it is important to recognise some of the obstacles facing a new form of educational institution such as this. The numbers of centres quoted above can be interpreted in a different way - namely that about half the centres have been in existence for less than two years, and consequently they have still to establish settled procedures for operation, according to the nature of their areas. A detailed analysis of 214 centres by Garland (3) in 1970 revealed that as many as one third lacked elementary facilities, some being little more than a spare classroom in a school made available for meetings after school hours. In many other places, an effective organisation has been established; and in some cases the response from teachers is described as 'overwhelming'. In Garland's sample, attendances averaged about 100 teachers per week during term at each centre. Reports suggest that the response has come from primary school teachers more than secondary, and from the non-graduate teachers more than the graduates. Those who teach the established academic subjects have their own subject associations, and a national or regional linkage on a subject basis may be more useful to them than a local link. Also, the teachers' centre, like the Schools Council itself, is a new institution, and inevitably has an initial struggle to secure a territory of operation against established interests already operating in these areas.

The indications are of a wide diversity of provision. There is no single agreed pattern. A majority cover the whole area of curriculum, while others were set up to deal with a special area or a single development project; others again, which started as specialised centres, are widening their scope. In most centres activities tend to be unevenly balanced, if only because some develop successfully and others run into the sand. Some centres have full-time wardens, appointed on a permanent basis; in others the warden is part-time, or on a short-term secondment. Some have originated from the initiative of teachers and some are run by committees of teachers; others tend to operate as the agency of the local education authority. The provision is clearly inadequate as yet as a basis for a national network of curriculum review and innovation. The variety results from the diversity in local circumstances, for only if the centre is genuinely a local centre - if the teachers see it as 'their centre' - is it likely to be used effectively and appropriately. Consequently, any attempt to impose a national pattern is likely to be resisted, and might weaken the strength of the movement at this early stage in its growth. In the Council's report on The First Three Years, 1964/7, published in 1968, there was a reference to 'some kind of national clearing-house for local centres as they develop, so that each can know of relevant work going on in others'; but even this exchange of information has not been developed systematically.

A related form of provision is the resource centre - a central store from which teachers may draw illustrative material for their teaching. Some teachers' centres function in this way, but there are many problems - for example, of storage, indexing and retrieval, and of the uncertain relationships between school-based centres and national resource centres and the question of how far centres should specialise. These are problems which the Council has only just begun to explore.

A particular strategy of provision on a regional basis is illustrated by the North-West Regional Curriculum Development Project in Manchester. This was instituted towards the end of 1966, when it was envisaged that it would be the first of five such regional groups. Manchester was an obvious choice because a collaborative regional project in CSE examining had been in progress since 1963. The starting point was a collaboration of the university and its satellite colleges of education (teacher training colleges) with the local education authorities in the region. This brought together the agencies which provided initial and in-service training, provided a co-operative basis for the establishment of teachers' centres, and made available the expertise and facilities of the University School of Education. Perhaps the scheme was too ambitious: in essence, its objective was to provide a continuity of training throughout the whole of a teacher's career. Regional centres, co-ordinated by the Schools Council and serving their local teachers' centres, would have provided a hierarchy of national, regional and local provision for curriculum development. In 1967, however, the Schools Council was not prepared to take this step; and though the North-West regional centre was supported, no other regional centres were set up.

One of the strategies which had been productive in the work of the Development Group in the Architects and Building Branch was the observation of 'good practice' by teachers in schools. However 'good practice' may be defined, the indentification of imaginative work and improvisation by teachers offered a promising source of ideas.

Too often good ideas remain unknown outside the classroom or the school in which the teacher works, because the communication structure in the educational system does not provide for any extensive exchange of ideas between teachers. The teachers' centre offers one means of remedying this weakness, but also, from time to time, the Schools Council considered ways of identifying and publicising examples of good teaching practice. Morrell's experience in the Development Group in the 1950s and then as Joint Secretary of the Schools Council was no doubt a factor in this; and it is appropriate that, as a form of memorial after his death, the Council decided to institute Morrell Awards - small grants, normally between £25 and £100, to give individual teachers facilities for developing ideas which were considered promising.

Another new strategy recently adopted is the use of the national television and radio network to provide a stimulus and guide for local teachers' groups. By arrangement with the British Broadcasting

Corporation, a series of television and radio programmes, starting in 1972, will be closely linked to Schools Council products and publications on the problems arising from the raising of the school leaving age. Previously, the networks had been hesitant to tie their programmes to any one approach; now it appeared that this approach might secure a more effective utilisation and a bigger audience for their programmes. Each programme would be transmitted twice, once in school hours, to enable teachers to participate in school centres or in teachers' centres. School broadcasting in Britain has been developed in close collaboration with teachers and education authorities through the School Broadcasting Council; and the tradition of consultation may help to make this particular form of central co-ordination - amounting almost to an invasion of the 'forbidden territory' of in-service training - less open to suspicion.

Many of the Council's decisions reflect the resolve that it should represent all the member interests and should not in any way appear to be an agent of the central authority. Two recent administrative changes - in finance and publications - illustrate this point. Initially, the Department of Education and Science paid directly for the staffing and accommodation of the Council and made an additional contribution for research and development projects. As was explained earlier, when the local education authorities agreed to provide a substantial sum in addition, this resulted in an expansion of activity. In April 1970, a new system of financing was introduced, in which the Department and the local authorities provided equal contributions towards the total cost, and the Council negotiated its budget with these bodies as an independent institution. Likewise, the Council's publications initially were handled by the government publishers, appearing under the imprint of Her Majesty's Stationery Office in the same way as publications of the Department. To some, this appeared too much like the stamp of official approval. When the first curriculum project began to develop teaching materials, there was also some uneasiness among the educational publishers at the appearance of this rapidly growing cuckoo in the nest. But a solution was found by setting up a Schools Council Publications Company which negotiates contracts with educational publishers for producing both the Council's reports and teaching materials. Thus the Schools Council imprint is now quite free from any association with the government publisher.

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Chapter IV

THE ORGANISATION OF THE COUNCIL

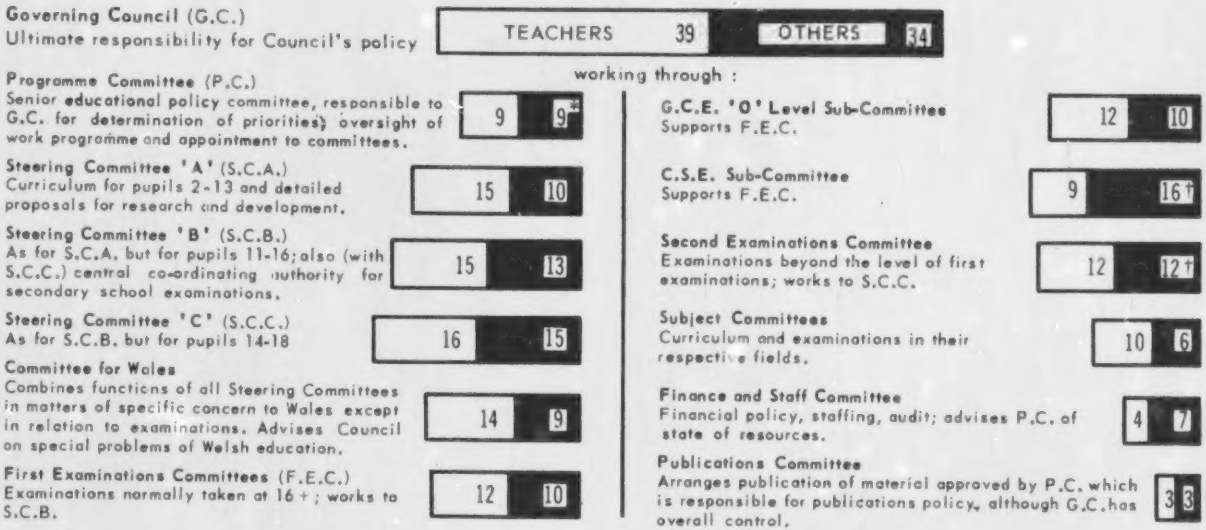
The previous chapter aimed to demonstrate how the Council has sought to apply two guiding principles, that teachers should be the agents of innovation and not merely spectators of the process of change, and that the Council should be seen to represent all the member interests and not to be an agent of central authority. These same principles are reflected in the structure of the Council's committees and its staffing. The present structure of committees is set out in Figure 1, which is taken from the first issue of the Council's newsletter, Dialogue (1).

The Programme Committee, which meets about once a month, holds a key position in this system. It is the first committee to consider most matters, and also has the final say (subject to approval of the Governing Council) after receiving recommendations from other committees to which the matters have been referred. The three Steering Committees, for the primary, early secondary and late secondary stages (allowing considerable overlap of age) are also powerful groups, especially if they disapprove of a course of action, when their decision has almost the power of veto. The Steering Committees are also the co-ordinating authorities for examinations and do not need Programme Committee approval for their decisions on this aspect. Examinations have a separate sub-system of committees; and the sixteen subject committees are involved both in the routine examination work and also in discussion of projects and other curriculum activities. There is a teacher majority on all committees, except the Finance and Staff Committee and Publications Committee.

The elaborate committee system was laid down in the Lockwood Report to ensure that the work of the professional staff should, in the words of Sir William Alexander (see page 25), 'be brought effectively under a representative body in which local authorities and the teaching profession are in membership.' The Council by itself was too large to exercise effective control, and so its functions had to be delegated to a number of smaller groups with more specific remits.

Figure 1

THE STRUCTURE OF THE SCHOOLS COUNCIL ILLUSTRATES THE PROPORTION OF TEACHER REPRESENTATION



		TEACHERS	OTHERS
Governing Council (G.C.)	Ultimate responsibility for Council's policy	39	34

working through :

Programme Committee (P.C.)	Senior educational policy committee, responsible to G.C. for determination of priorities; oversight of work programme and appointment to committees.	9	9*
Steering Committee 'A' (S.C.A.)	Curriculum for pupils 2-13 and detailed proposals for research and development.	15	10
Steering Committee 'B' (S.C.B.)	As for S.C.A. but for pupils 11-16; also (with S.C.C.) central co-ordinating authority for secondary school examinations.	15	13
Steering Committee 'C' (S.C.C.)	As for S.C.B. but for pupils 14-18	16	15
Committee for Wales	Combines functions of all Steering Committees in matters of specific concern to Wales except in relation to examinations. Advises Council on special problems of Welsh education.	14	9
First Examinations Committees (F.E.C.)	Examinations normally taken at 16 + ; works to S.C.B.	12	10
G.C.E. 'O' Level Sub-Committee	Supports F.E.C.	12	10
C.S.E. Sub-Committee	Supports F.E.C.	9	16†
Second Examinations Committee	Examinations beyond the level of first examinations; works to S.C.C.	12	12†
Subject Committees	Curriculum and examinations in their respective fields.	10	6
Finance and Staff Committee	Financial policy, staffing, audit; advises P.C. of state of resources.	4	7
Publications Committee	Arranges publication of material approved by P.C. which is responsible for publications policy, although G.C. has overall control.	3	3

* *Some ex-officio members are expected to be teachers; otherwise, the teacher majority will be secured by co-options.*

† *A proportion of CSE boards' representation is expected to be by teachers; otherwise, the teacher majority will be secured by co-options.*

It would be wrong, however, to describe the arrangement as designed solely to control: it also provides a means by which the views of teachers and local education authorities can be brought to bear. If representatives of these two groups are fully involved in discussions of the Council's work, two advantages are likely to accrue. First, the activities undertaken and the decisions made are more likely to be acceptable to schools and local authorities. In a decentralised system these agencies have a large measure of independence, and unacceptable proposals from the Council would just be ignored. But if a project can be shaped appropriately in the planning stage, a form may be found which is acceptable. Also, the practical experience of the representatives is available to help design the project properly. Second, the products of the Council's work are more likely to be taken up by schools and local education authorities if representatives decide priorities from their practical knowledge of school problems and needs. The point is well expressed by Owen (2) (formerly a Joint Secretary of the Council):

> "The new idea which teachers think is peddled by the theorist or enthusiastic devotee for his own seemingly unintelligible ends meets with coolness, suspicion and sometimes hostility. That which teachers make their own, on the other hand, quickly puts out strong roots and equally quickly flourishes in a variety of ways which go well beyond their originator's conception." (page 63)
>
> " ... To promote a sense of relevance ... amongst serving teachers requires -
>
> that any experimental work should be carried out with regular teachers in ordinary teachers' centres; otherwise credibility is lost;
>
> that experiment should start where the teachers now are in their thinking rather than where we might hope that they should be;
>
> that no major claim is made for any experiment ahead of time: the modest small scale idea which is limited in the duration of the work required is more likely to attract support from the teachers than what is large, nebulous and timeless." (page 66)

Nevertheless, the structure is cumbersome. To quote one observer (3): 'The Schools Council struggles with a committee structure which should never have left the pages of a constitutional lawyer's textbook.' It is also expensive in time and money. The number of committee meetings each year in the Council's headquarters is between 400 and 500; some 400 papers each year are prepared on special topics (exclusive of minutes, agenda, etc.) for these committees; three executive officers and six clerical officers handle arrangements for meetings; and committee travel and subsistence costs amount to about £21,000 per year.

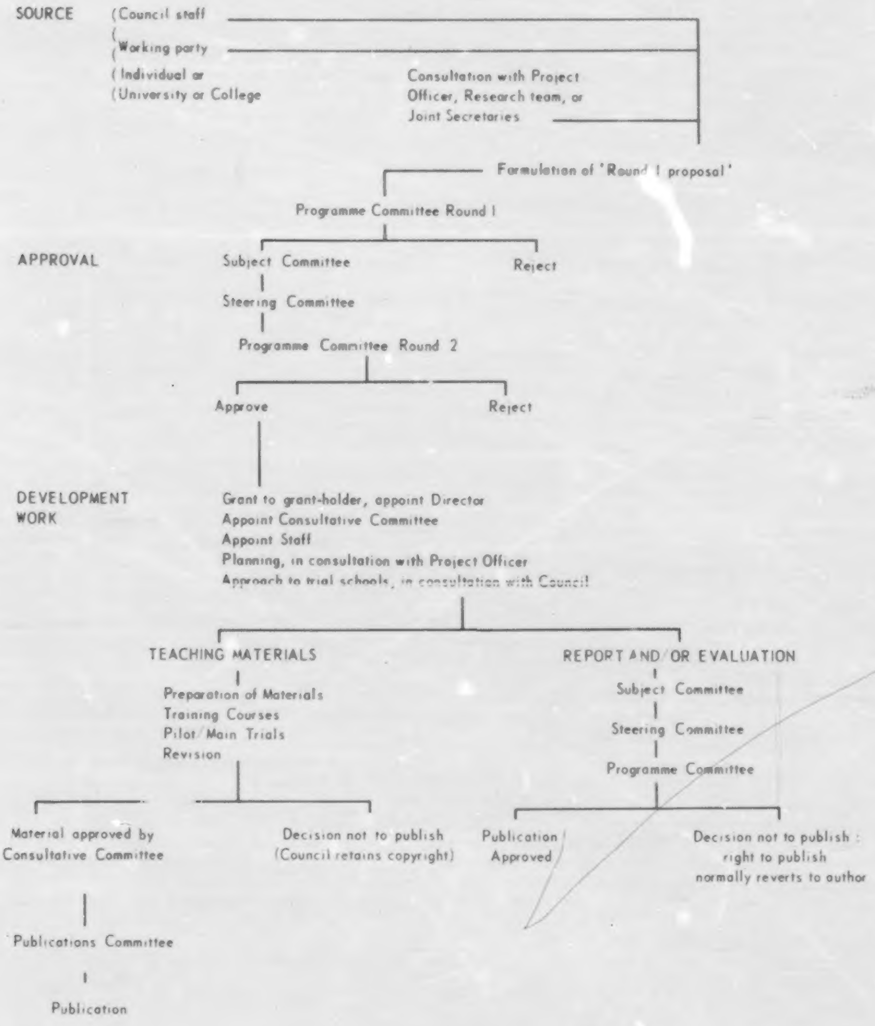
Some idea of how the committees function may be given by Figure 2, which outlines the procedure for a development project from initiation to publication.

The meetings of committees are timetabled to enable the process of approval, from round 1 to round 2, to be passed in about one month (though it is exceptional for a proposal to pass through so quickly), and during this month the proposal will be considered from a variety of aspects (and, by some members, on a variety of occasions), from the specific one of the subject concerned (in the Subject Committee) to the general desirability in the light of the Council's priorities and available funds (in the Programme Committee).

There are other problems which may in the long run be more serious than the complexity of the organisation. How can representatives acquire the necessary range of background experience to decide priorities? How can busy teachers and administrators handle the volume of information which the Council generates? ('Two pounds of paper received two days before a meeting.') These problems arise in almost every organisation which is governed by committees. In local government and other similar bodies, committee members are non-professional but are given the bases for decisions by the professional staff. Since the members are elected and answerable to their constituents, this is a means by which the public interest is brought to bear, and operates to control the professional staff. The position of Schools Council members is not quite like this. The School's Council members are answerable to their 'constituents' not directly but through the representative bodies which nominate them - teachers' associations, county council and education committee associations, and so on. Inevitably, complaints of the intrusion of 'teacher politics' are voiced from time to time. The very strong representation of the National Union of Teachers (which, because of its large membership, has considerably more representatives than any other body) puts it in a powerful position, particularly if the representatives should wish to act together. No one group has sufficient representation to persuade the Council to move in a direction which all other

Figure 2

A CURRICULUM DEVELOPMENT PROJECT : AN EXAMPLE OF PROCEDURE


SOURCE
(Council staff
(Working party
(Individual or
(University or College
Consultation with Project Officer, Research team, or Joint Secretaries
Formulation of 'Round 1 proposal'
Programme Committee Round 1
APPROVAL
Subject Committee
Reject
Steering Committee
Programme Committee Round 2
Approve
Reject
DEVELOPMENT WORK
Grant to grant-holder, appoint Director
Appoint Consultative Committee
Appoint Staff
Planning, in consultation with Project Officer
Approach to trial schools, in consultation with Council
TEACHING MATERIALS
Preparation of Materials
Training Courses
Pilot/Main Trials
Revision
REPORT AND/OR EVALUATION
Subject Committee
Steering Committee
Programme Committee
Material approved by Consultative Committee
Decision not to publish (Council retains copyright)
Publication Approved
Decision not to publish : right to publish normally reverts to author
Publications Committee
Publication

groups resisted; but it would be possible for an organised group to operate negatively, and the Council is particularly vulnerable in this respect. Consequently, it dare not fall out with its masters. The only alternative to this system, however, would appear to be to give more responsibility to the Council staff: the question then would be, 'To whom are they answerable?' The committee system has to be understood as an attempt to build a democratic sharing of responsibility into the procedure of curriculum development.

The Council's staffing establishment for the year 1971-72 is approximately 140 in all: about 40 senior staff and 100 executive and clerical staff. Almost all these are attached to the Council on secondment for periods averaging about three years. The only permanent appointments are certain professional specialists, for example, in publications and information, and the resources and media adviser. Of the senior staff, 6 are seconded from the Department of Education and Science, 6 from Her Majesty's Inspectorate, 14 from local education authorities, schools or colleges of education, and 7 from universities; 4 have been recruited from outside the educational system. The supporting staff is composed of 30 executive officers, 25 clerical officers, 24 secretaries, typists and clerical assistants, and 20 others on special or other duties.

The Lockwood Committee had recommended strongly against a permanent secretariat and study team organisation, and this principle has not been challenged. The arrangement is justified on three grounds: to ensure that the staff do not become isolated from the rest of the educational system; to prevent the emergence of a professional core which might exert too much influence; and to feed back into the educational system personnel who have an understanding of Schools Council work. It has the advantage that the Council can thus recruit, if only for a limited period, some of the most able staff from other branches of the system and gain from their varied experience. These other branches would not readily part with their best people except on the basis of secondment; and, since the staff do not seek promotion within the Council's work, the problem of a career structure in the limited field of research and development does not arise. Nevertheless, the arrangement has obvious disadvantages in lack of continuity and loss of the expertise acquired in the course of the work.

The senior staff comprise the Joint Secretaries, the Research Team, the Project Officers, Information and Publishing Staff, Educational Advisers and Administrative Officers with special responsibility, together with the Field Officers.

There are three Joint Secretaries. Initially, two were appointed, one from the Inspectorate and one from the Department of Education and Science; but when the local education authorities took a share of finance, a third Joint Secretary was appointed. This troika is an illogical arrangement, since Council staff are not in any sense representative of the interests of the bodies from which they have been seconded. It is a means of limiting the authority of the secretariat, on the grounds that the Council's strength must come from teacher participation or it will fail in its declared purpose. As was explained in Chapter I, there was a joint secretariat in the Development Group of the Architects and Building Branch, and in the Curriculum Study Group, the intention being to bring together professional and administrative skills in the control of the unit. This model is no longer appropriate to the very different structure of the Schools Council. In 1967 and 1968, when the review of the constitution was being made, the Joint Secretaries recommended that they should be replaced by a single Director, but the proposal was firmly rejected by the Governing Council.

The Research Team at present comprises the Director and a staff of four, and may soon be enlarged to undertake an expansion of research on examinations. The Director is part-time, being also Professor of Curriculum Research and Development in the University of Reading. The boundary between research and development is deliberately not drawn too sharply, but the research function is intended primarily as a background to development work and not as an activity for its own sake. Consequently, the investigations which it undertakes are usually short-term and have a clearly defined object. Much of the work of this group is advisory - advising the Council's committees on research needs, helping in the design of projects, on the selection of personnel to carry out projects, and in maintaining contact with projects in the course of their work. In particular, they advise on existing research findings relevant to projects in hand or under consideration (often an impossibly demanding task for a small team dealing with the whole area of the curriculum), and help to assess the potentiality and limitations of research proposed. They also serve an important liaison function, being a main means of contact with universities and colleges.

Curriculum development work is the special concern of four Project Officers, each of whom heads a small development team. Their function is best explained by following a proposal through the whole course from the initial idea to the final report (see Figure 2). At the initial stage the Project Officer (or another member of senior staff acting in this role) will discuss a suggestion with those who might eventually undertake the work. The suggestion may have been submitted to the Schools Council, or may have been discussed in a committee, or may have originated from a member of Council staff. If the idea seems worthwhile, the Project Officer will then see to the preparation of a more precise design, will prepare the appropriate papers for committees, bearing in mind the general lines of Council policy - all this in consultation with whoever may be invited to do the work - and he will see the proposal through the various committee stages. One of his most important tasks is the costing of the project, a skill which few would-be innovators possess or even appreciate adequately. If the proposal is approved, the Project Officer will help the project director with detailed planning, will assist in suggesting suitable persons for the advisory committee which is to be associated with the project, and will often be present at the appointment of the project team. Throughout the project he will maintain contact with the work, providing a two-way channel of information - informing the Council of progress and introducing the project team to the Council's resources and advice where appropriate. In the preparation of materials, for example, the media adviser will be brought in. The assistance of the Publications Section may also be involved at the report stage, especially in ensuring that the form and style of the report is likely to be suitable for the teachers to whom it is directed. Even at this final stage, he may still be involved in assisting with arrangements for 'after-care', that is, in seeing that there will be persons able to give training in the use of the materials resulting from the project after the project team has been disbanded.

Relatively little has been said about the examinations aspect of the Council's work. A group of senior staff provide a key service to the examination committees, organising and processing the formidable volume of business which comes before them, approving syllabuses, scrutinising papers, consulting with examination boards, in a demanding timetable of meetings. For example, in one period from September 1967 to December 1968 (and the volume of work has not diminished since then), the subject committees and their 'A' level sub-sommittees met on 112 occasions, considered 233 papers referred to them, were involved in preparing 142 papers relevant to their specialist interests, and drafted 5 documents for publication. This work, though difficult to describe concisely because of its variety, has a more immediate and direct influence than any other part of the Council's work on the teaching in secondary schools. The work is by no means all routine. There has been a sustained effort, in which Council members and staff have worked closely together, to reform the structure of secondary school examining. Almost all parties involved agree on the need for reform, but agreement on the precise nature of the reform has not yet been achieved.

Among the specialist staff, mention has already been made of the Resources and Media Adviser. This is a relatively new appointment, with three main areas of operation: assistance to projects, liaison with media specialists (see Chapter III) and exploration of the problem of resource centres. The Publishing Manager also provides assistance to projects, on the preparation of both teaching materials and reports, but also maintains very necessary links with the publishing industry. In the year April 1969 to March 1970, seventeen new publications and two new editions (apart from research and teaching materials from projects) were issued - an indication of the volume of work. The Information Officer heads a section comprising a press officer, an exhibitions officer, a print officer, a librarian and a project information officer, whose essential function is to ensure that teachers know about the products of the Council's work. It is too easy to assume that curriculum development is concerned only with the development of new materials and methods; but if its success is judged by the extent to which these are adopted by teachers, the Information Service has a crucial role - and a formidable task. The publication of the newsletter, Dialogue (see Chapter V), is one important part of its work.

The Council also has one group of staff who work in regional areas throughout the country, a team of ten Field Officers, with a co-ordinator in the Council headquarters who also works in the field. Their main responsibilities are communication and liaison, and each is assigned to, and lives in, a region of England and Wales; one has, in addition, a special responsibility for liaison with Colleges of Education. They provide a direct contact with teachers in schools and with local education authority officials, acting as Schools Council representatives, informed about development work in progress but not personally involved in any one project. They also have an assignment to identify, observe and record examples of 'good practice' in the schools they visit, thus providing a source of information which links the Council staff more closely with the schools. In particular, their purpose is to stimulate and aid local development work, and much of this is done through liaison with teachers' centres.

Field Officers, like other staff, are seconded - seven are headmasters or senior teachers, two are college lecturers and one a local inspector - and their interest in curriculum development does not end when they return to their permanent posts. Their number, however, (though increased within the past year from six to ten) is inadequate for the areas they cover, and their influence is inevitably limited.

Mention has already been made of the sources of the Council's funds - half from local education authorities, half from the Department of Education and Science - and how this arrangement developed from the original provision (see Chapter II).Budgeting is done on a three-year 'rolling' basis, and estimated expenditure (in £000's) at 1st October 1970 for the period 1970-73 is

Year	1970/1	1971/2	1972/3
Research and development	749	690	795
Staff and service	540	568	604
Total expenditure	1289	1258	1399

Since estimates have to be agreed with the 'paymasters' - firm estimates (that is, with commitment) for the year immediately ahead, and provisional estimates for the year beyond - there is inevitably an element of control by the authorities and the Department. But the initiative in preparing estimates, and decisions on how the funds are used, rest with the Council. Research and development projects are costed over the whole period for which they are planned. Most of these are three-year projects, usually starting in the middle of a financial year, and the expected pattern of expenditure (in percentage over a part year, two full years and a final part year) is 10, 30, 35, 25. Expenditure of staff and services includes the following items (figures in £000's for the year 1970/1): salaries 279, rent and rates 113, travel 39, publications 22, newsletter 20, information services 14.

Decisions on development programmes are made on the basis of the quality of the proposals, and there is no intention that funds should be spread evenly across subjects or age-groups, or in any fixed proportion, nor even that amounts spent should reflect in any way the importance of any one area or age. The total sum involved in Schools Council projects started between 1964 and 1971, is £4,316,000, though not all this has yet been spent. This includes commitments (figures in £000's) to languages 966, humanities 620, science 585, English 516, mathematics 368, inter-related studies 355 and examinations 425.

The procedure for financing a specific programme is set out in detail in a Council handbook (4). A grant is paid to an institution, the 'grant-holder', which administers the grant, thus giving the project team a genuine independence within the framework of the conditions specified.

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Chapter V

ACTIVITIES

It is difficult to select typical examples of the activities of the Schools Council because there is such a wide variety among the 140 projects and investigations which the Council has initiated since 1964. For example, the Modern Languages Project at York University, to develop language teaching materials in French, German, Spanish and Russian for pupils between 13 and 16, will cost £831,000 by 1974. In contrast, a team teaching project in a Bristol comprehensive school involves the secondment of one teacher for fifteen months and the provision of secretarial assistance. The preparation of Curriculum Bulletin 1, Mathematics in Primary Schools (which has sold over a quarter of a million copies), was largely the work of one person. Project Technology, costing £260,000, has developed teaching materials to help school pupils understand the importance and relevance of technology and to develop their creative abilities in applying scientific knowledge to practical problems. Children as Readers, a project at Bristol University in collaboration with the National Association for the Teaching of English, is an examination by groups of teachers into the part which literature can play in the curriculum. The Humanities Curriculum Project, originally at a London College of Education and now at the University of East Anglia, crosses the traditional subject boundaries: it has been concerned with preparing materials and developing strategies for teaching controversial human issues (such as War and Society, Relations between the Sexes, Poverty) to pupils of average and below average ability between 14 and 16.

Two contrasting projects will be described in detail. The first is Science 5/13, which was a continuation of a programme initiated by the Nuffield Foundation. It follows a 'traditional' pattern of curriculum development aimed to produce teaching materials for the age range 5 to 13. Its trial materials are already in use in schools, and the project is nearing completion. The second, The Middle Years of Schooling, is an example of a more recent type of project, in that it is concerned with the whole curriculum for children in the later years of primary school and the first years of secondary schooling:

it aims to promote discussion and contact among teachers in order to clarify issues and produce ideas, and has completed the first stage of its work.

Science 5/13

The Nuffield Junior Science Teaching Project started in 1964 with a team of eight workers seconded from schools and colleges. In 1965 trials of their materials began in schools drawn from twelve pilot areas set up by the Schools Council. Interest was so great that in 1966 forty other areas were added. The project ended in 1966; but from 1967 the Schools Council, in collaboration with the Nuffield Foundation and the Scottish Education Department, sponsored a five-year continuation project, with the title Science 5/13. The principal aim of this project was not just to continue the previous development work, but to relate topics or areas of science to 'a framework of concepts appropriate to the ages of the pupils', in order to cater for children of different abilities and from different backgrounds, and to provide help for primary school teachers and the colleges of education which train these teachers.

In April 1967 Len Ennever, the project director, left the Inspectorate to set up the new project; and in the course of the next two years a team of six full-time staff and three office staff was formed, including Wynne Harlen, appointed as evaluator. Their first task was to decide what they wanted the project to achieve; and working groups of teachers were formed to discuss objectives. The evaluator was involved in the discussion even at this initial stage. A check list of objectives was produced, intended to be used as a guide to be kept in mind and not as a limiting restriction on development: hence the title, With Objectives in Mind. In this statement the team used Piaget's stages as a framework for specifying objectives:

Stage 1 : transition from intuitive thinking to thinking with the aid of concrete operations;

Stage 2 : when thinking with concrete aids is powerfully applied;

Stage 3 : when this kind of thinking is being supplemented by hypotheses, and thinking is related to abstract ideas.

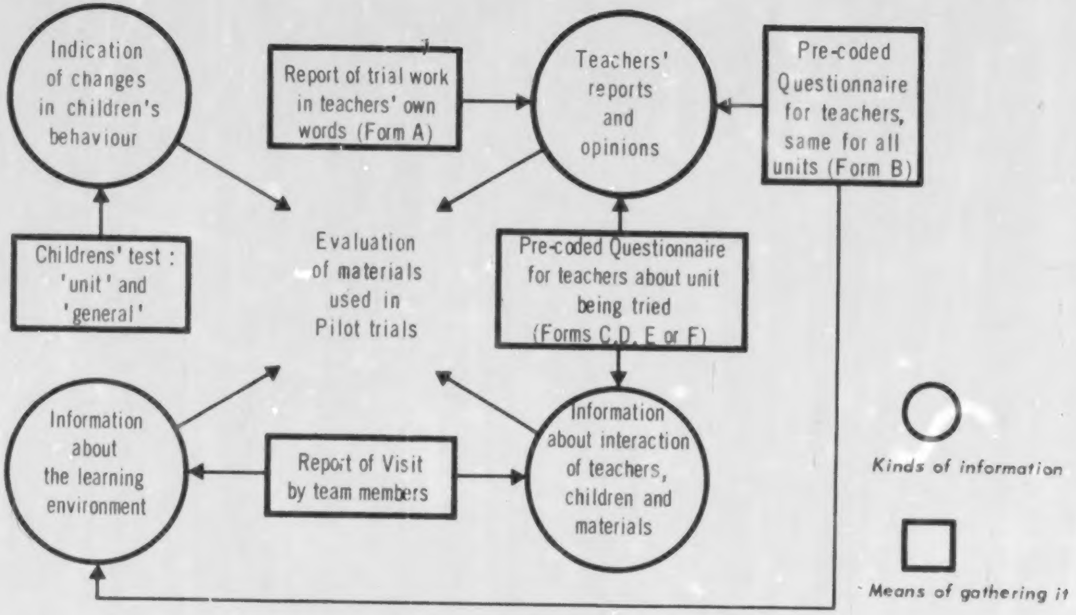
Objectives were formulated within this framework, in order to help teachers see the curriculum as a steady progression, and to help prepare children in the later primary years for the transition to secondary school.

Materials were prepared as 'units' - specific subject-areas within the children's experience: Trees, Metals, Time, Structures and Forces, Minibeasts (micro-organisms), Coloured Things, and so on. Ideas for these were obtained with the help of teachers, and of their pupils. For example, in 'Coloured Things', a rough outline of the proposed unit was given to groups of teachers, and (to quote) 'within a month, the teachers returned with armfuls of materials from their pupils'. Many changes, of course, were needed subsequently, when the materials were tested in the trial schools. Additional supporting material was gathered as background information for teachers, and this was published separately. A set of materials of a different kind was also issued - for the use of teachers and tutors in colleges - to explain the project and the use of its products: it consisted of work cards, recorded tape, an 8 mm. film-loop showing children at work on the materials, case studies, and a guide and notes. A series of Newsletters was begun, and these are circulated to all the participating schools: 40,000 copies of Newsletter 2 have been printed. Nineteen local education authority areas (involving 430 schools) are pilot areas in which the materials are evaluated, but the materials are in fact being used in 141 areas (out of 146 in England and Wales).

Evaluation of the units has gone on throughout the process of development. Newsletter 2 contains a diagram (Figure 3) which summarises the evaluation procedures.

The tests for children included both cognitive and affective items, and were based on film loops (to reduce the influence of differences in reading ability) for group testing. In each local authority area, pairs of schools had been designated by random allocation as trial and control schools. The evaluation of the material by teachers was done by filling in a booklet of questions: it is evidence of teachers' goodwill that out of 80 trial schools in a recent evaluation check, only three failed to co-operate fully (and one of these was due to a postal failure). The scale of this evaluation can be indicated by the number of children's booklets used - 24,000 in one set of testing. Sophisticated techniques, including computer analysis, have been used, and have identified patterns of teaching and conditions of work which are associated with growth of interest in science. This strategy of concurrent or on-going evaluation has the advantage that units are evaluated while there is still

Figure 3


Indication of changes in children's behaviour
Report of trial work in teachers' own words (Form A)
Teachers' reports and opinions
Pre-coded Questionnaire for teachers, same for all units (Form B)
Childrens' test : 'unit' and 'general'
Evaluation of materials used in Pilot trials
Pre-coded Questionnaire for teachers about unit being tried (Forms C,D, E or F)
Information about the learning environment
Report of Visit by team members
Information about interaction of teachers, children and materials
Kinds of information
Means of gathering it

time to alter them. On this view, the evaluator is most effective if he is neither too closely involved with the team nor separated from them by too wide a gulf.

In addition to the actual publication of the materials, their diffusion is helped by information on strategy and progress, given in the Newsletters which have been mentioned, and by courses for teachers, in all parts of the country, by designated persons on a regional basis. One member of the central team has a special responsibility for contacts with colleges of education.

The task, as the project team see it, is not just to provide good materials for science teaching. By emphasising objectives, and placing these in a framework of development stages, by working through teachers' centres, and especially by involving teachers in the development work at all stages of the process, the intention is to develop ideas and methods of approach and to encourage teachers to think critically about their teaching.

The Middle Years of Schooling

In the University of Lancaster there are at present three Schools Council projects, which themselves illustrate the variety of the Council's activities. One is a small-scale examinations study, using G.C.E. 'A' level scripts to evaluate a Chemistry syllabus. The second aims 'to carry out research and develop materials relevant to the construction of a satisfying programme of religious education in secondary schools, acceptable to people of differing convictions ...' The third is entitled 'The Whole Curriculum of the Middle Years of Schooling', and might be described as a 'think-tank' study to consider how the curriculum from 9 to 13 might best be planned, taking account of differences between schools in their resources, objectives, environment and organisation.

The origin of the Middle Years Project can be traced to a Schools Council conference in Warwick in 1967, which discussed the idea of the middle school, a stage between the first school and the secondary school. The Plowden Report on primary education had commended the idea: the question was - and still is - what kind of school should this be? In October 1967, after the conference, a submission for a project on this topic was made by Professor Alec Ross of Lancaster. The initial version of this proposal spoke of aiming to 'develop a curricular theory' for the age-range concerned, from 9 to 13. Later, in consultation with one of the Joint Secretaries and Council staff, the emphasis on theoretical aspects was reduced, and a survey of 'good practice' was proposed, followed by an effort to develop, in conjunction with practising teachers, a scheme of interdisciplinary studies. After further discussion, the project was approved in March 1968, at a cost of £34,380 (subsequently increased to £39,580) over the period 1968-72. The description of the project in the 1969/70 Annual Report is:

> "An investigation into the approaches to learning best suited to the needs of children in the middle years of schooling, bearing in mind: the need to ease the transition from primary to secondary schooling; the opportunities provided by the newly-established middle schools; the experience already gained with inter-disciplinary studies in junior and secondary schools; changing views about the content of the curriculum."

A senior project officer, Arthur Razzell, was appointed to start the project at the beginning of 1969. The first stage involved consulting a wide variety of experienced persons to identify examples of what they considered good practice in the teaching of children in these middle years. This was followed by the issue of a series of 'work sheets' - list of questions for discussion - to teachers' centres. For example, five such sheets were on the topics: primary - secondary transfer; curriculum method and content; curriculum priorities; the deployment of teachers; and timetables. On transfer from primary to secondary school, the questions included:

1. What kinds of problem over transfer exist in your area?
2. To what extent have there been developments between schools designed to overcome them?
3. What advantages would derive from closer co-operation between primary and secondary teachers?

Although many of the teachers' centres had only recently been set up, there was a ready response from no less than 240 centres. In all, some 3,000 teachers were involved in discussion groups. Detailed reports from 82 districts, involving 1,300 teachers, provided the basis of a first preliminary report. The merit of this report was that it treated the issues in the way the teachers saw them, and thus directed the project on lines which would have meaning for teachers. But the exercise was seen also as a means of promoting contact and collaboration between primary and secondary school teachers; and it demonstrated that given an appropriate framework, they could work together and profit from discussion and a sharing of experience.

The next stage of investigation involves visiting schools to observe different solutions to these problems in the wide variety of conditions teachers have to deal with. Though the project will not attempt to make evaluative judgments and will not set up experiments, it will accumulate a store of ideas, and will attempt to establish guiding principles. Schools which have attempted to integrate studies have adopted different arrangements and different timetables, appropriate to their own staffing and accommodation and objectives. A study of the various solutions which have proved successful or unsuccessful will provide an indication of which options are open in planning an integrated curriculum for the middle years of schooling.

In this project also - though it is very different in its remit from Science 5/13 - the strategy has been to secure maximum teacher involvement from the start. In this respect, both projects express clearly the Schools Council philosophy which was outlined in the previous chapters.

Other activities

These are only two examples among many. Other projects and activities are summarised in the Council's Annual Reports, and completed work is described in Council publications. Descriptive pamphlets and newsletters are also available for many of the projects in progress. A short description of two different projects, chosen as examples of the Council's work, is to be found in Wrigley's account (1) of the Schools Council in Educational Research in Britain, 2.

The Council's activities in examinations have already been mentioned. In the decentralised English educational system, examinations have exercised a powerful influence on the curriculum in secondary schools. They are a serious constraint on innovation: as Wrigley points out, "We will never be able to change the curriculum imaginatively if we are constrained by an outmoded examination system". Consequently, the linking of curriculum development and examinations in the work, and also in the title, of the Schools Council for Curriculum and Examinations, was an important step.

Three levels of activity can be distinguished: review, research and policy. Subject committees are responsible for oversight of G.C.E. examinations within their areas, and all new or revised 'A' level syllabuses come to the Council for approval. Fourteen 'A' level subcommittees review these proposals and report through the subject committees. In the two years 1968-70, 84 syllabuses were considered and 64 were approved. The sub-committees also carry out annual scrutiny of papers, examiners' reports and a selection of scripts (1,200 in 1969-70). 'O' level syllabuses may also be considered, for comment only. As each G.C.E. board is represented on these sub-committees, they constitute a national forum in which the Council's member interests - including the teachers - are also represented.

Much of the work connected with C.S.E. examinations (and G.C.E. also) comes into the category of research, for the problems of comparability and monitoring are technically complex. The Council has made grants for this purpose, and for other aspects of examination research, to the National Foundation for Educational Research, to universities and also to examination boards. There is clearly a need for a wider range of research on examinations, including feasibility studies to test new strategies and new grading systems, and for this purpose the Council's own research team is being expanded.

At the policy level, extensive discussion has made little progress so far. The Council is seeking an agreed basis for a single examination at age 16 (in place of C.S.E. and G.C.E. 'O' level). At the 'second examination' stage, the Schools Council and the Standing Conference on University Entrance agreed in 1966 on three main objectives:

" a) that the prospective increase in size and academic range of sixth form populations makes curricular reform necessary to meet the various needs of sixth formers,

b) that it is desirable to reduce specialisation and broaden the scope of study in the sixth form,

c) that it is desirable that a pupil's choice of subjects for study in the sixth form and the university, insofar as it narrows his career opportunities, should be made as late as possible in his school career."

It was not until the end of 1969 that a set of recommendations were agreed in the working parties. The proposals (which came to be known as the 'Q and F' proposals) were, however, referred back in 1970. Clearly, this is an area where interests are deeply involved and are often in conflict. The Council at least provides a means of consultation: the problem is how to bring the general wish for reform into focus.

A different area of Council activity is concerned with communication and diffusion of the products of development work. The growing importance of this is reflected in the provision, outlined in the previous chapter, of an expanded information service. The full list of the Council's publications covers five closely printed pages of the Annual Report. The volume and variety of these is almost overwhelming; and as the number of publications increased, the need for a more direct and simpler form of information to schools became clear. In September 1968 the first issue of the newsletter Dialogue, was distributed free to schools and teachers' centres throughout the country. Dialogue is a brightly-coloured, well-illustrated, 16-page newsletter, issued once a term, containing articles, comments and views on the work of the Schools Council, its projects and publications. It costs approximately £20,000 a year to produce 200,000 copies. The correct level of content - neither too superficial for those interested and involved, nor too technical for the general reader - is difficult to strike, but it is probably the main channel by which the Council informs teachers of its activities and objectives.

The information service is not the only section concerned with communication with teachers: Council and project staff share this responsibility, and the Field Officers have a special role to play (see Chapter IV). Other channels of diffusion are used: press releases, exhibitions and lectures or addresses by the Chairman, the Joint Secretaries and other members of staff to national conferences, specialist associations and teachers' groups. The radio and television programmes scheduled for 1972 (see Chapter III) will introduce a new medium for communication with teachers. Special conferences on selected themes have also been arranged: thus, in 1970, conferences to which members of local education authorities were invited were concerned with the establishment of teachers' centres, and these will be followed up in 1971 and 1972 by a series of regional conferences for teachers and wardens.

In spite of all this, diffusion is still far from adequate. Though few teachers now ask 'What is the Schools Council?' there is little awareness of its policy and objectives - or of its problems. One priority accepted by the Programme Committee in 1970 was better liaison with colleges of education: the appointment of an additional field officer with this task was one immediate result. The students in the colleges will soon be teachers in the schools, and liaison with college staffs offers one of the most effective means of communication. In the long run, of course, the most important form of communication will be the diffusion of the actual products of the development work, and already these are beginning to be available.

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Chapter VI

PROBLEMS AND PROSPECTS

Any assessment of the contribution which the Schools Council has made must start by acknowledging the volume of activity and critical thought which it has generated. It has provided a means by which over £1 million a year is directed into curriculum research and development, with safeguards to ensure that this money is spent in activities which are practical and relevant to the needs of the schools. The sum is not excessive in comparison with the £2,000 million expenditure on the whole educational system. In a relatively short time the Council has not only set up a large number of projects in the areas of the curriculum where there was an obvious need for reform, but also it has established a procedure of teacher involvement in the process of reform, and this has a more important long-term implication. In the short term, other strategies may be more effective. In Scotland, for example, new syllabuses in Mathematics and Physics, drafted by committees convened by the central authority, and adopted nationally as a basis for secondary school examinations, have been incorporated more rapidly into the school system. Similarly, 'packages' - teachers' kits, ready-made with accompanying instructions - offer a tempting recipe for instant reform. But if it is to be lasting, curriculum development involves changing the attitudes and outlook of teachers as well as changing the syllabus, and in the long run it is the change in the teachers which is the more important. (In a cartoon in The Teacher, one pupil asks another: 'Which do you learn more from, teachers or facilities?')

One criterion commonly suggested for evaluating the achievements of the Schools Council is whether they have resulted in changes in what happens in the classroom. This is a sensible, down-to-earth requirement, but it has its limitations: one must consider also the quality of the change and the potential for continuing development. Assessment of this kind is harder to make. The changes are also harder to achieve, for they depend on other institutions in which the Schools Council has no direct influence. Provision of teachers' centres, for example, is a key element in securing a high level of teacher participation, and this provision, and also provision of the facilities necessary to enable them to work effectively, are the responsibility of local education authorities. In-service training is also an essential element in following up the pioneering work of project teams. The Council is limited to training which is directly linked with development work or the provision of 'after-care' to cover the period immediately following the conclusion of a project. As there is already a certain rivalry between the local education authorities and the colleges and universities over the question of who should have the main responsibility for in-service training, the emergence of the Schools Council as an additional competitor would be unwelcome. Thus the Council must operate through the established agencies, if its efforts are not to be dispersed too widely. Initial training also is an important point at which to influence the teacher, and much closer links with the training authorities are needed if the Council is to achieve its broader aims. A recent article in Education (1) gives a warning:

> "The teaching world needs to be made actively aware of what has been and what is happening. Unless this is done, projects will lack follow-up, enthusiasms will wane and school curricula, instead of being a "development area", will resemble a cemetery with tombstones reading "Project X 1967-70", "Project Y 1969-72" RIP."

Teachers' centres, in-service training and initial training constitute an area where there is a conflict of interests not unlike that which occurred at the formation of the Council. A similar process of negotiation may be necessary to establish a clearer definition of responsibilities.

The article quoted above complains that there has been too great a multiplicity of diverse projects, and argues for a more coherent policy from the Schools Council. This is a familiar criticism, which the Council itself has acknowledged by initiating projects to study the balance of studies in the 'whole curriculum'. One of these, covering the age range 9-13, has been described in Chapter V; a Working Party on the Whole Curriculum 13-16 has also been set up. The flood of publications, however, putting forward new ideas, new materials and new patterns of integration of subjects, has been overwhelming, and has raised the question of whether the rate of innovation is greater than the system can absorb. (The cry of 'too much innovation', understandable from overburdened teachers, is seldom the complaint which pupils make about their school experience.) The declared policy of the Council is to increase the range of choice for teachers, but this is not always clearly understood and there is an obvious risk of confusion. The task of diffusion, which the Council has recognised as important at this stage, is therefore not simply a matter of effective publicity and hard 'selling' but involves educating the profession in making appropriate choices and providing better facilities for consultation and discussion among teachers.

This point again illustrates how readily curriculum development spreads to involve changes throughout the system, far beyond the content of syllabuses. Indeed it may be argued that its true value is achieved only if it leads to changes in relationships within the whole educational system. In Chapter I the emergence of innovatory institutions in many countries was explained as a response to social and economic pressures: the Schools Council 'grew out of a recognition ... that co-operative machinery was needed to organise a more rapid, and more effective, response to these changes'. But establishing an institution does not itself solve the problem of change: it merely sets up the co-operative machinery. Who is responsible for seeing that the necessary changes come about? The Council operates within the restraints of the established relationship of authority in the educational system, and has only the power of persuasion. In this sense, its establishment was 'an assertion of orthodoxy'(2), though it has been criticised, alternately, as being composed of 'power hungry' men, and as being 'humble' and 'excessively defensive'. Its position is vulnerable, in that it is dependent on other institutions for implementing its work. Consolidation of links with the other parts of the system on which it is dependent is therefore an urgent priority, and to achieve this, it has still to win their full confidence and trust.

It would hardly seem that they need fear its power. The danger is rather that they may not value its contribution. The more frequent criticisms now are that its organisation is cumbersome and slow, that it is a talking shop, that its publications are too general and that it is unable to take the positive action necessary for leadership. Certainly the committee network, the divided secretariat and the policy of staffing by short-term secondment, provide effective constraints on the staff. The historical reasons for this were set out in Chapter I, and, more important, the justification of this policy was explained in Chapter II in the quotations from Caston's 1970 speech. Moreover, the criticisms are sometimes off the mark. The timetable of committees does make it possible for a proposal to go from Round 1 (submission) to Round 2 (acceptance) within one month. On the other hand, delays do occur: the setting up of the Working Party on the Whole Curriculum 13-16 was approved in principle in June 1970, but the final composition of the group was not agreed until February 1971.

The criticism is put more pointedly by Manzer (2):

> "Advance and adaptation with the agreement of all important interests concerned is comfortable, but it is also notoriously slow. In a time demanding fairly quick responses to changing situations, where policy decisions must be renewed much more rapidly than previously, it is likely to be highly frustrating and costly as well. The criticism of the Schools Council reflects both the frustration of those wanting more rapid change and the discontent of those concerned to protect traditional values and prerogatives." (page 97)

The constraints on the staff are similar to those which apply in local authority administration and in the Civil Service, and consequently they are not challenged nor, it would appear, even resented. The relative freedom of the project teams, insulated from the committees by the project officers, is in sharp contrast. Perhaps this is just the correct mixture of freedom and constraint. The recruitment of Council staff by short-term secondment, though a useful solution to the absence of a career structure in educational research in Britain, also has a disadvantage, in that the staff may lack experience or status in meeting with those in other sectors of the educational service. This is a problem also for the project teams, whose staffs are recruited for short-term periods: they are expected to have expert knowledge in their chosen field, but must often lack the experience of a career specialist from college or university. The solution advocated by Brown (1), that 'the various overall programmes might well be given more permanent existence in recognised centres', is not one likely to win acceptance from the Schools Council as it is presently minded.

There is a different way in which the Council's position may be vulnerable. Three member interests hold a controlling power. The first two, the Department of Education and Science and the local education authorities, provide it with its finance. The third, the teachers, constitute a majority on its committees. To whom are the teacher representatives accountable? Their immediate accountability is to the union or association which nominates them. The teachers' associations, therefore - and in particular, the National Union of Teachers, which has the largest number of members - have a special responsibility, in that they could exert a powerful influence on the Council. To this extent, the health of the Schools Council is linked with the vitality of democracy in the teachers' associations.

One final problem is the drawing of the boundary between development and research. The 1968 Report explains the distinction:

> "The Council only finances educational research when it can foresee a return in terms of help to teachers in devising a curriculum for the pupils with whom they are concerned ... Research therefore merges naturally with "development", which can be defined as the rendering of the results of research into a form which will be of practical use to teachers." (page 3)

The first report, in 1965, while declaring 'The Council is not a research agency', had taken a wider view:

> "The Council's policy is ... to define those areas of development work for which the need appears to be most urgent; within those areas to make the fullest possible use of research already undertaken; but to be ready to fill gaps, including gaps which can be filled only by fundamental research, if the needs of the schools are sufficiently urgent and are unlikely to be met in other ways." (page 26)

In his account of the Schools Council in Educational Research in Britain, 2, Wrigley (3) observes that 'Most of us in the Schools Council do not believe that there is a very clear division between curriculum development and research'. But later in the article, he makes the point that one reason why development work has been very successful is

> "because awkward problems have been deliberately by-passed and ignored ... It is my view that the problems can be side-stepped for a time successfully, and to some extent Nuffield and Schools Council have done just this. But it is also my view that in the long run fundamentals cannot be ignored." (page 32)

The field of examinations is one area where the Council has already decided to expand its research activities, in order to test the feasibility of possible courses of action. This is well inside the 1968 requirement that it should 'foresee a return in terms of help to teachers'. In the field of the curriculum a shift of emphasis towards research may be needed in the next phase of the Council's work. Project materials are becoming available, and problems encountered in diffusion will make themselves felt. What are the resistances to innovation, what conditions support it, facilitate its acceptance, what costs does it involve, what consequent changes in relationships and attitudes - in the particular circumstances of the English educational system and in various types of school and environment? These questions, and others - for example, the question of the balance and integration of studies in the whole curriculum - can still be framed so as to ensure 'a return in terms of help to teachers', but they will require a different style of approach.

The Council must soon consider whether it should move into a new phase of activity or continue in its present style. Certainly there is enough to keep it busy for the present. But if it is to move, some of the existing restraints must be relaxed. This is the underlying theme of the points made in this chapter: the question is whether the Council and its staff have gained the confidence and trust to allow such a move. There is no question of departing from the basic principles discussed in Chapter II. In his report of the 1967 International Curriculum Conference, Maclure (4) summarised these principles by referring to:

> "... the English myth of the autonomy of the teacher as master of his fate and his pupils' curriculum. This is a myth in the sense that it expresses great truths in a form which corresponds more to an idea than to reality ... Throughout the conference this tended to be the characteristic English contribution - to concentrate attention on the teacher, his role as a professional who must be directly implicated in the business of curriculum renewal; not as a mere purveyor of other people's bright ideas, but as an innovator himself. To refer to this as a myth is not to denigrate it. It is a crucial element in the English educational idea." (page 10)

Bringing this myth a little nearer to reality is both the achievement of the Schools Council in its work so far, and its task in the years ahead.

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Part Two

THE ONTARIO INSTITUTE FOR STUDIES IN EDUCATION (OISE), UNITED STATES

by

Francis S. CHASE

June 1971

SUMMARY

The Ontario Institute for Studies in Education (OISE) aims at the continual improvement of all levels of education in Ontario - Canada's most populous province. It is basically a graduate college of education devoted to instruction, research and development. Its range of activities is far broader than many education change agencies, covering research, development, dissemination, implementation and graduate training. All these it carries out under its own roof and with its own large and highly qualified staff.

It was founded in 1965 by an Act of the Legislative Assembly of Ontario, and has rapidly expanded both its staff (now totalling 650) and activities since. Needless to say, this expansion has not been achieved without constant difficulties, and criticism which continues today.

Its internal organisation is basically divided into 10 academic departments, with three co-ordinating offices for activities which cut across department lines or involve outside organisations.

The current budget of $9 million supports an academic staff of 142 (128 full-time), 138 academic support staff, including research assistants and project officers, professional staff of 95 and general support staff of 275.

Based in Toronto, its large modern buildings present an educational model in terms of their optimum use throughout the week and the year.

The Institute, with its controlling Board of Governors took over two departments - Educational Research and Graduate Studies - of the Ontario College of Education, and merged with the Ontario Curriculum Institute in 1966. For graduate study the Institute is linked to the University of Toronto.

Formation of the Institute took place against a background of province-wide reorganisation of educational administration, and of increasing public acceptance of the need for an overhaul of the education system.

From the first year, there was much criticism of the organisation and work of the Institute, both from its own staff and from outside. Much of it reflected impatience and too high expectations. It also reflected the problems inevitably associated with absorbing existing institutions, and the problem of communication within a rapidly expanding staff. Recruitment of staff from outside Ontario led to criticism of too much American influence.

For a period, demands for participation and the work of review bodies and committees to meet the demands took up a lot of time.

The author of this study looks in detail at the cross currents of power and influence within the Institute, and the way in which they have affected its growth, and that of the Academic and Administrative Councils.

In 1969, a committee set up following criticism suggested that the Institute was disappointing in the area of applied research and innovation in the schools: there had been satisfactory development and graduate teaching, and some sound basic research. A Task Force made 112 specific recommendations at the same time on objectives, programmes and structure of the Institute. A joint committee condensed the recommendations of both these bodies, and reported in June 1970. Most of its proposals are now in effect, including that for an Institute Council consisting of 40 per cent external, 40 per cent staff and 20 per cent students (amended only to include the present Board of Governors and external members).

Because of the way in which research and development in the Institute grew, without proper planning, there were at one time over 300 separate projects. This led to widespread criticism because of the failure to mount large-scale planned programmes to meet the pressing needs of Ontario schools. After a review, three main thrust areas were defined, and projects re-grouped, with an eye to major need areas. Budgetary procedures were reviewed to allow more effective management and support for unreviewed exploratory work was limited to less than five per cent.

In the case study, examples are given of the various kinds of project.

Dissemination of Institute work and products is varied and well organised, including publications, conferences, workshops, public speeches, films and tapes.

As with other new institutions, the formation of OISE involved risks - inevitable when its definition of objectives and modes of operation were so vague as to raise expectation and to pose threats to existing institutions and practices. But the freedom offered by the vagueness opens the way to allowing the Institution to make a distinctive contribution. The basic structure and governing mechanism have proved flexible enough to withstand considerable pressure.

The author believes that to carry out its wide objectives fully, the Institute would require many times its present resources. It also needs to have a defined and different role from that of the Ontario Department of Education and other agencies. Some of its functions might be shared with advantage.

In the author's words: "The Institute encompasses practically the entire gamut of approaches to educational reform, encounters almost every obstacle along that boulder-strewn path, and in itself presents a microcosm of all that is involved in making education relevant to post-modern societies and the needs of mankind."

Barriers to even the best laid plans include the serious gulf that has opened over the years between educational practitioners and researchers, the meagre body of validated knowledge available to reformers, the lack of experience with systematic research and development and the lack of trained managers and specialists.

The particular conflict between the prized autonomy of an academic community and concepts of accountability to the supporting society is slowly giving way: as it does projects will become more problem or product oriented. Its eventual methods of reconciling academic freedom with public accountability may well hold lessons for education everywhere, as may the advantages of its comprehensive objectives.

The lack of a planning unit to serve the Institute as a whole is seen by the author as probably its greatest defect. Although there has also been some failure to make full use of resources, nevertheless the Institute's record of accomplishment is a considerable one, as is its internal flexibility in correcting its own mistakes.

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ACKNOWLEDGEMENTS

This study of the Ontario Institute for Studies in Education represents the work of three persons and the attribution of authorship only to myself is justified chiefly by considerations of the presumably greater objectivity of outside versus inside observers. While it is true that final judgment with respect to content, organisation and findings was made by me, two others contributed so substantially as to have justified (under other circumstances) the attribution of co-authorship to them. They are: Dr. Ralph Garry, Chairman of the Department of Curriculum and administrator for the case study; and Mrs. Barbara Dienes, project officer in the Institute.

Dr. Garry made the study possible by providing access to documents and other sources of information, by offering invaluable insights into the organisation and operations of the Institute, by preparing memoranda on the background and evolution of the organisation, and by a critical reading of preliminary drafts.

Barbara Dienes did a substantial part of the interviewing, conducted a questionnaire study of student opinion, located and analysed required information, and prepared initial drafts of portions of the manuscript.

Grateful acknowledgement is made of the essential contributions of Dr. Garry and Mrs. Dienes to whatever merit the report possesses.

Acknowledgement is due also to the many persons on the staff of the Institute and in related organisations who gave freely of their time to provide information and frank opinions regarding the work of the Institute. Special thanks are extended to Director R.W.B. Jackson, Assistant Director, John H.M. Andrews, and the Co-ordinators of Graduate Study, Field Development, and Research and Development for helping in every possible way.

Because of the openness of all Institute staff and other Ontario educational leaders and their obvious commitment to finding the wisest possible approaches to the improvement of education, the study was for this investigator both intriguing and rewarding.

Francis S. Chase
June, 1971.

INTRODUCTION

Within the past ten years nations on every continent have established new agencies to expedite constructive change in education in the hope of bringing the education system in line with the demands of contemporary society. Among these new agencies the Ontario Institute for Studies in Education is distinguished by virtue of the breadth of its objectives and the scope of its activities. It provides graduate study leading to masters' and doctoral degrees and supports faculty research in the field of education. While it thus functions as a graduate department or college of education, it is also charged with the performance of research and development activities comparable to those conducted elsewhere by specialised research and development organisations of various kinds. It offers assistance to school districts and other educational agencies in analysing and solving problems encountered in operation, and serves as a channel for the dissemination of research and other knowledge relevant to education. Its area of activities covers the whole of Ontario, which encompasses one fifth of Canada's vast area and contains one third of its more than twenty million people; but its reach extends beyond Ontario and its influence is being felt nationally and internationally.

This document reports a "case study" of the Ontario Institute based on the following sources:

1. A large number of official and unofficial documents, including all Annual Reports of the Board of Governors and a liberal sampling of other publications; descriptions and analyses prepared by the several departments, co-ordinating offices, and field centres; reports from numerous committees dealing with organisation and decision-making, reviews of research, and other matters of concern to the staff of the Institute.

2. Interviews, ranging from 45 minutes to two hours in length, with key informants within and without the Institute, including the Deputy Minister, Dr. J. R. McCarthy, and the Superintendent of Curriculum, Mr. J.K. Crossley, of the Ontario Department of Education, the President of the Ontario Teachers Federation, two chairmen of important advisory councils, and two members of the Board of Governors; also 12 administrative officers of the Institute, including the

Director, Co-ordinators, department chairmen, and centre heads; and twelve others from the academic staff, research and project officers and officers of the Graduate Student Association.

3. Impressions gathered by the chief investigator, Francis S. Chase, during a period in residence as visiting professor and in three subsequent visits of three days or longer - in the course of which two field centres were visited, and numerous informed conversations bearing on the Institute were held with many officials, faculty members, graduate students, and school administrators.

4. Data gathered and analysed by Dr. Ralph Garry who served as administrator for the study.

5. Drafts prepared by project officer Barbara Dienes, reflecting analyses of documentary data, a questionnaire study of the opinions of graduate students, and interviews with staff and students.

The chief investigator's observations and judgments unquestionably have been influenced by his visits over the past five years to more than thirty educational change agencies or research and development organisations, including the university research and development centres and regional laboratories in the United States, the Human Resources Research Council of Alberta (Canada), and several distinctive agencies for educational reform in Asia and Europe.

This report is an attempt to depict an organisation in the process of evolution. Change and attempted change over the past five years have produced considerable internal stress, accompanied by wide differences in opinion regarding organisation, staff capabilities, accomplishments, future directions, and prospects for success. The report cannot pretend to reflect adequately the complexity of the Institute or to assess the strength of the forces within and without which are shaping it. It does represent, however, a studied effort to provide illuminating perspectives on an evolving organisation on which great expectations rest, and which is still in the process of finding itself so that it may realise the tremendous potential which it appears to hold for constructive change in education.

Chapter I

OVERVIEW OF THE INSTITUTE

PURPOSE AND STRATEGIES

The Institute is conceived as a central agency for change in education through a combination of strategies and activities which are usually distributed among a number of different agencies. The Institute's scope of action as defined by the 1965 Act of the Legislative Assembly is so broad as to subject it to the twin hazards of undertaking more than it can encompass with the resources available and of infringing on areas claimed by pre-existing agencies.

Those interested in the reform of education usually emphasise one or more of the following approaches:

1. Planning to assess the needs for education in the society and the performance of educational agencies, to forecast future needs, and to propose alternatives and analyse the probable costs and benefits of choosing specified alternatives.
2. Research to increase knowledge of how human individuals learn and of other matters related to the effective functioning of educational institutions.
3. Development to apply available knowledge and technical skills to the development of curricula, instructional technology and other products.
4. Professional education, pre- and in-service to enable teachers, administrators, and other educational personnel to relate fruitfully to the needs of individuals and to use modern knowledge and technology to aid learning.
5. Dissemination of information to educational practitioners and concerned citizens regarding research findings, improved technologies, materials of instruction, forms of organisation and other developments with potential for improvement of educational achievement.

6. Implementation through assistance to schools and colleges in evaluating, selecting, installing, and regulating innovative processes and products.

7. Evaluation to measure or otherwise assess the effects produced by different processes and products, with particular reference to the extent to which performance criteria are met by various combinations of materials, media, and other things.

The seven strategies listed, with the exception of the fourth, are usually subsumed under the broad term of research and development (R and D) which is sometimes elongated to (RDDE) research, development, diffusion (covering dissemination and implementation), and evaluation. Planning generally is regarded as an essential basis for operation; and professional education or training is often added as a requirement for sound development - especially when there is an effort to develop a system composed of all elements necessary to the attainment of specified objectives.

Some would add a catalytic function performed by various ways of reducing resistance to change or inducing planning for change. Others would emphasise the creation of alternatives to traditional institutions and practices in the belief that schools must be supplemented - or replaced - by agencies that can respond more readily to the needs of individuals in contemporary societies (and to the needs of those societies for regeneration in order to serve mankind). Still others would pin their hopes on institutional regeneration to be accomplished through closer specification of objectives and establishment of new roles and mechanisms for effective attainment of objectives. Yet others would embrace a strategy of creating predispositions for learning by involving parents and community groups in improving pre-school and out-of-school environments for learning. All these are really included in the seven strategies listed above.

Many educational change agencies tend to emphasise a central strategy and to employ others only as they appear essential to achievement of the central purpose. Most of the regional educational laboratories in the United States, for example, focus on product or systems development but use evaluation, staff development (training), and sometimes other strategies as essential accompaniments of sound development. Other change agencies try to maintain a balance between two linked strategies, as in the case of the university-based R and D centres in the United States. Educational agencies which focus on planning exist in most nations; agencies which concentrate primarily on evaluation and research are also known; and schools, colleges, and departments of education combining graduate training and research are found everywhere.

The Ontario Institute for Studies in Education, in contrast to most change agencies found elsewhere, is specifically charged with five tasks (research, development, dissemination, implementation, and graduate training) and by implication may be assumed to encompass also the functions of planning and evaluation. The Institute's functions and the strategies for the discharge of functions are more comprehensive, therefore, than any other education change agency known to the author. (A possible exception is another Canadian organisation, the Alberta Human Resources Research Council, which has responsibility for performing or stimulating the performance of all functions assigned to the Institute with the exception of graduate training, and whose mandate extends beyond education to all aspects of human development and conservation.)

THE INSTITUTE IN ITS SIXTH YEAR

The Ontario Institute for Studies in Education is now (spring 1971) in its sixth year of existence. Its staff and activities have expanded rapidly since its establishment in 1965; and it has encountered the difficulties which seem everywhere to accompany efforts to produce planned change in education. The academic departments, now numbering ten, remain the basic units of internal organisation; and there are three co-ordinating offices which serve as increasingly influential agencies for initiation and management of activities that cut across department lines or involve relationships with other organisations (described in Chapter III). There are also four divisions which provide editorial, finance, library and other essential support services. In order to improve communications and co-operative relationships with the Ontario Department of Education and with school districts, regional field development centres have been authorised and five of these are now in operation. The direction of the Institute as a whole remains, as it has been from the beginning, the responsibility of the Director who is a member of, and responsible to, a Board of Governors composed of Government appointed representatives nominated by Ontario educational institutions and organisations.

The chart on the opposite page is a crude depiction of the organisation of the Institute before adoption in 1971 of the report of the Joint Committee. The numerous committees, advisory boards, and review boards are omitted, as is the Administrative Council. The major changes as of mid-1971 are the replacement of the Academic Council by an Institute Assembly as described in Chapter III and the replacement of the former array of committees and advisory groups by a small number of standing committees. Eventually, if the Provincial Legislature approves, the Institute Assembly will be transformed into the governing board under the name of the Institute Council, replacing the present Board of Governors.

The chart should not be interpreted too literally as indicating the line of command, for several reasons: (1) The academic staff members enjoy a great deal of autonomy which permits them to exercise initiative and to respond to leadership from anywhere in the Institute; (2) The support divisions respond to calls for services from anywhere in the Institute; (3) The departments under the leadership of their chairmen are linked to the Director's Office as well as to the Co-ordinating Offices.

The staff of the Institute numbers approximately 600, varying according to the time of year and other factors. As shown in Table 1, the staff is distributed among the following categories:

> Academic, including professors, associate professors, assistant professors, and lecturers;
>
> Senior professional staff, such as the heads of support divisions and other senior non-academic officers;
>
> Academic support staff, consisting of research associates, research assistants, and project officers.
>
> Professional staff, including editors, engineers, librarians, programmers, and other administrative and technical personnel; and general support staff, including clerical workers, library assistants, machine operators, and maintenance personnel.

Staff members are engaged in an almost bewildering array of activities which are described briefly in Chapter IV.

The Institute has an annual operating budget of more than $9 million which is divided among the types of operations shown at the top of Table 2. It may be noted that administration and the several services which support all operations consume 31.7 per cent of funds; research and development activities receive 31.2 per cent (representing an increase over earlier years and a greater emphasis on major

THE ONTARIO INSTITUTE FOR STUDIES IN EDUCATION

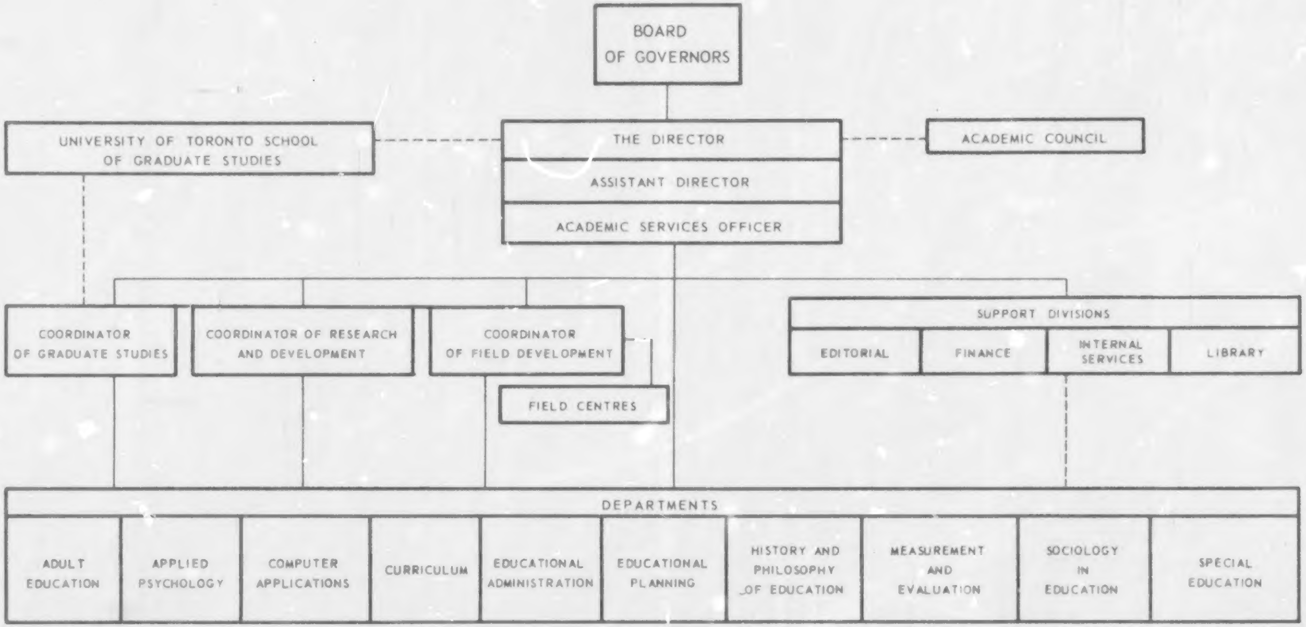
BOARD OF GOVERNORS
UNIVERSITY OF TORONTO SCHOOL OF GRADUATE STUDIES
THE DIRECTOR
ASSISTANT DIRECTOR
ACADEMIC SERVICES OFFICER
ACADEMIC COUNCIL
COORDINATOR OF GRADUATE STUDIES
COORDINATOR OF RESEARCH AND DEVELOPMENT
COORDINATOR OF FIELD DEVELOPMENT
FIELD CENTRES
SUPPORT DIVISIONS
EDITORIAL
FINANCE
INTERNAL SERVICES
LIBRARY
DEPARTMENTS
ADULT EDUCATION
APPLIED PSYCHOLOGY
COMPUTER APPLICATIONS
CURRICULUM
EDUCATIONAL ADMINISTRATION
EDUCATIONAL PLANNING
HISTORY AND PHILOSOPHY OF EDUCATION
MEASUREMENT AND EVALUATION
SOCIOLOGY IN EDUCATION
SPECIAL EDUCATION

Table 1

STAFF DISTRIBUTION, 1971
Showing Numbers of Each Category in
Departments, Offices, and Divisions

Departments	Academic	Senior Professional	Academic Support	Professional	General Support	Total Staff
Adult Ed.	9	2	5	1	8	25
Applied Psych.	20	0	10	2	8	43
Computer Applic.	4	2	11	7	16	40
Curriculum	16	0	16	1	15	48
Ed. Admin.	16	1	5	1	11	34
Ed'l. Planning	11	3	14	0	7	35
Hist. & Phil.	11	0	7	1	5	24
Meas. & Eval.	11	0	10	1	9	31
Sociology	9	0	8	1	6	24
Special Ed. & Clinic	7	0	6	1	8	22
Administrative Offices						
Director	1	1	1	3	4	10
Asst. Director	2	1	1	6	13	23
Field Develop.	10	7	4	4	7	32
Graduate Studies	6	0	4	4	15	29
R & D	2	1	6	2	3	14
Support Services						
Editorial	0	1	0	9	7	17
Finance	0	2	0	5	27	34
Internal	0	1	0	4	39	44
Library	0	1	0	17	33	51
TOTAL	135	23	108	70	244	580

programmes); the graduate studies programme is allocated over 25 per cent; and the remainder of slightly over 11 per cent is divided between field development and the library. The budgetary allocations to the several departments, offices, and services is made by review boards for the several types of activities after study of requests from the various departments and offices. As indicated by Table 2, the bulk of the support for graduate studies is divided between the Office of the Co-ordinator of Graduate Studies and the several departments. Research and development funds are similarly divided between the Co-ordinator's Office and the several departments; and administrative costs are apportioned among the Director's Office, the three co-ordinating offices, and the supporting services.

The Institute is housed in a new, architecturally attractive, and functionally designed building at 252 Bloor Street West in the city of Toronto. The building has ample offices, 10 classrooms, 21 seminar rooms, an auditorium, large library, and cafeteria. Special facilities include: two-channel simultaneous translation systems; specially designed study carrels and fifty individual study rooms in the library; a modern language centre with laboratory, documents collection, and language-teaching materials; a computer laboratory which operates two time-shared computers for research and development in computer systems for education, student programming, computer-based instruction and man-machine interface design; the Educational Clinic, a laboratory for observing and recording the behaviour of children, both individually and in interaction with children and adults, by means of observation booths, audio and video recording, an eye-movement camera, and a polygraph; the Media Production Laboratory for film production and multi-media exploration, and Media Services Unit to provide audio-visual equipment and photographic and production services; and the Office Services unit for duplicating and printing.

The buildings are used seven days a week throughout the year, often up to sixteen hours per day, for Institute activities and as meeting place and resource centre for provincial and national education associations and groups in Metro Toronto.

Table 2

BUDGETARY ALLOCATIONS FOR 1971-72
Showing Percentages of Total Institute Budget
Allocated by Review Boards to Departments and Services

		REVIEW BOARDS				
	Admin. & Services	Graduate Studies	Research & Development	Field Development	Library	Total Instit Budget
Departments						
Adult Ed.	.8	1.1	1.9			3.8
Applied Psych.	.9	2.8	3.0			6.7
Computer Applic.	.7	.5	3.8			5.0
Curriculum	1.0	2.4	3.3			6.7
Ed. Admin.	.9	1.7	3.1			5.7
Ed'l. Planning	.6	.7	2.9			4.2
Hist. & Phil.	.4	1.5	1.9			3.8
Meas. & Eval.	.6	1.4	2.5			4.5
Sociology	.6	.7	1.0			2.3
Special Ed. & Clinic	1.4	1.6	1.3			4.3
Administrative Offices						
Director	5.6	.1				5.7
Field Develop.	.7	.1	.3	5.6		6.7
Graduate Studies	3.0	11.3	.4			14.7
R and D	1.9		5.3			7.2
Support Services						
Editorial	2.0		.5			2.5
Finance	3.8					3.8
Internal	4.7					4.7
Library	.9				5.6	6.5
Computing Serv.	1.2					1.2
TOTAL	31.7	25.9	31.2	5.6	5.6	100.0

Chapter II

BACKGROUND, ORIGIN, AND EVOLUTION

In a foreword to the First Annual Report of the Board of Governors, the Chairman Bora Laskin noted that: "Basically, the new Institute is a graduate college of education devoted to instruction, research and development." The Chairman recalled that the statute establishing the Institute was introduced by the Minister of Education "with the wholehearted approval and support" of the Premier and "received the support of all parties when it came before the House." He stressed the point that the Institute is "a public body ..... established deliberately by the government as part of its long-range policy ...."

CREATION OF THE INSTITUTE

The Institute was brought into being by "An Act to establish the Ontario Institute for Studies in Education" which was enacted by the Legislative Assembly of the Province of Ontario in 1965. According to the Act, the objects of the Institute are

a) To study matters and problems relating to or affecting education, and to disseminate the results of and assist in the implementation of the findings of educational studies;

b) To establish and conduct courses leading to certificates of standing and graduate degrees in education.

Under the provisions of the Act the cost of the establishment, maintenance and conduct of the Institute were payable initially out of the Consolidated Revenue Fund and, after 30 June 1966, "out of moneys appropriated therefore by the Legislature and out of revenues derived from tuition fees, grants from individuals and organizations, and from other sources."

The Institute was placed under the management and control of a Board of Governors composed of the Director of the Institute and other members appointed by the Lieutenant Governor in Council, upon the recommendation of the Minister of Education, as representatives of:

1) teacher-training institutions of Ontario,
2) the University of Toronto,
3) provincially-assisted universities of Ontario,
4) the Department of Education,
5) the Ontario Teachers' Federation,
6) the Ontario School Trustees' Council,
7) provincial associations of directors of education, school superintendents and inspectors,
8) residents of Ontario, and
9) members of the administrative and instructional staff of the Institute, in addition to the Director.

The composition of the Board represents a departure from the usual make-up of university boards in Ontario in that its members are largely educators appointed as representatives of educational institutions and professional associations. Chairman Laskin, who was himself appointed under the category of "residents of Ontario," perceived the unique composition as a source of strength and observed that: "Our Board is so composed because of the desire and need to draw as widely as possible upon the wisdom and experience of practising educators, and thus to ensure a readier as well as a more critical reception of the findings of conducted studies and to provide support for implementation of the results of such studies through changes in both the policies and practices of our educational complex."

The Act of establishment provided the Institute with two preexisting constituent elements by transferring the Department of Educational Research and the Department of Graduate Studies of the Ontario College of Education to the Board of Governors of the new Institute. A third constituent element, the Ontario Curriculum Institute, was merged with the Ontario Institute for Studies in Education by the two Boards of Governors. The way had been paved for this by the Ontario Institute for Studies in Education Amendment Act, 1966, which authorized the entering into agreements for the acquisition of assets of any association or organization "having objects similar to those of the Institute."

Under powers explicitly granted in the Act, the Institute's Board of Governors, in July 1965, authorized the Director to proceed to work out an agreement of affiliation with the University of Toronto for purposes of graduate study. Following this, the Institute set aside its full right to confer graduate degrees in education in favour of the University under an agreement that the University should continue to run a Department of Educational Theory in its School of Graduate Studies, with the Institute assuming major responsibility for providing the teaching staff of the Department. Under this arrangement, the graduate programmes of the Institute are graduate programmes of the University of Toronto, and the Department of Educational Theory, based substantially in the Institute, at once possesses all the rights and privileges and is subject to all the responsibilities and controls of any other Department in the University's School of Graduate Studies.

SETTING AND BACKGROUND

The Province of Ontario, which is the primary focus for Institute operations, lies between the Provinces of Quebec and Manitoba and extends from Hudson Bay on the north to the Great Lakes on the south. It spans arctic tundra, muskeg, open bog, forest, mining, marginal to rich agricultural lands, and highly industrialised urban areas. While slightly smaller in area than its French-speaking sister Province of Quebec, it is the larger in population and the more advanced economically. It provides Canada with a full half of the gross value of all manufactured products; it is the site of nearly half of all construction in the nation; and it produces one-third of the minerals. It is also a leading agricultural producer among the provinces; but it lags behind Quebec, British Columbia, and the Maritimes in lumber products and fisheries.

In the Province of Ontario, population densities range from 1 to 20,000 per square mile. Aside from the southern strip of densely populated areas bordering Lake Ontario and Lake Erie, the vast majority of the Province is either virtually uninhabited or thinly inhabited. The southern part of the Province has been a magnet for immigration in the past twenty-five years. Many areas have 15 per cent or more recent immigrants. Toronto, the capital city and leading metropolis, has at least 20 per cent immigrants and contains many sections in which a majority of the residents were born in other countries. Within the last decade, the migrants have included 190,000 school-age children. The native tongue of one in ten of the residents of Ontario is French, and the native language of an even larger proportion is neither English nor French, for two-thirds of all Canadian children whose language is neither English nor French live in the Province of Ontario and half of these are among the 2,500,000 in metropolitan Toronto.

The creation of the Ontario Institute for Studies in Education was part of a major reorganization of the Provincial Education Programme. In Canada, as a result of the British North American Act creating the Dominion in 1867, education is almost exclusively the responsibility of the provinces. The federal government provides certain support in special areas such as manpower training, adult and immigrant education, but educational policy, programme, and financing lie within the jurisdiction of the several provinces. Ontario, like other Canadian provinces, had a strong centralized education system. The Department of Education, directed by a cabinet minister, set policy, prescribed curricula, approved textbooks, and controlled teacher education. The major portion of financial support was provided through local taxation, with a board of school trustees responsible in each local district. Department of Education regulations were enforced by an inspectorate.

Sweeping changes instituted by the Minister of Education William G.Davis have reversed these arrangements in recent years, placin control for school organization and curricula in local districts and shifting the major portion of financial support and economic control to the provincial level. Today, more than 50 per cent of school finances are provided from provincial grants, the remainder from local sources. In the process of the overall reorganization, some 1,700 local school boards were consolidated into 150 county and city boards. Average enrolment in these large administrative units is approximately 7,500 students. Primary authority was vested in the county (or city) board and its educational director. The Department of Education was decentralized; and the province was divided into ten regions, each with a branch office of the Department of Education with a staff of programme consultants whose task was to assist the counties and the schools in these districts in programme development.

The antecedents of the Institute can be traced back some forty years to the creation of a Department of Educational Research, headed originally by the late Dr. Peter Sandiford, then by Dr. John Long, and finally by the current Director of the Institute, Dr.R.W.B.Jackson. This Department conducted studies on a wide range of educational problems. Among these were demographic studies, research on teacher supply and demand, on provincial financing of schools, on the creation of a metropolitan school district incorporating the five Toronto boroughs, and other studies on virtually every aspect of education. The work of this small Department provided indications of the potential contributions of well-supported research centres.

A second factor contributing to the creation of the Institute was the obvious need for more graduate education. Pre-service education of elementary teachers was provided by a one-year certification programme offered by thirteen teachers' colleges. Secondary teachers might complete a one-year B.Ed. programme at any of three colleges of education after earning a university B.A. degree, or enrol for graduate study. Prior to the establishing of the Institute, one college - the Ontario College of Education - offered graduate work leading to masters' and doctoral degrees. Any significant improvement in the provincial education programme demanded an expansion of the education programme for school personnel of all categories.

A third contributing force was the Ontario Curriculum Institute which was launched at a meeting held on 2 November 1962, attended by trustees, educators, and interested citizens of Ontario. Financial support for the Curriculum Institute came from the Ontario Teachers' Federation, the Ontario Department of Education, the Ontario School Trustees'Council, and subsequently from all Ontario universities and most Ontario school boards. Dr. J.R.H. Morgan relinquished his post as Superintendent of Secondary Schools for the city of Toronto to become the first Director of the Curriculum Institute.

The Ontario Curriculum Institute co-operated with the Department of Educational Research in considering approaches which would provide an environment for studies in education, particularly curriculum studies, with identification of financial support to make long-term planning a practical possibility. By the end of August 1966 the Curriculum Institute had published and distributed widely seventeen reports on various aspects of the curriculum. A number of the studies, such as those in reading, science, and mathematics, had proceeded to the stage of trial, demonstration and evaluation. It is significant that the Board of Governors of the Ontario Curriculum Institute, in a motion dated March 1965, unanimously approved in principle the formation of an Ontario Institute for Studies in Education. In August 1966 the Board of Governors of the Curriculum Institute took the necessary legal steps to relinquish its charter and transfer its assets and its liabilities to the Ontario Institute for Studies in Education.

Finally, the general social climate was receptive. Increasing public interest in scientific developments, the advent of atomic energy, the developments and exploration of space contributed to the direct argument that an overhaul of education was needed, and to the analogous argument that research would prove as beneficial in social spheres as in physical. A statement of government policy by Premier

John P. Robarts in February 1965 stressed the importance of education in dealing with the implications of social and technical change, recognized that careful planning was needed to restructure and redevelop the educational system, and predicted that the key to success would be found in research and development. The Minister of Education, William G. Davis, proceeded to work out several major reforms including the proposal for the Institute and the decentralization of elementary and secondary education. In designing the Institute, the Minister worked closely with Dr. Jackson, who subsequently was named Director of the new Institute, and with other educational leaders in the Province.

GROWING PAINS

In his report on the first year of operation, published in the First Annual Report of the Board of Governors, Director Jackson acknowledged certain difficulties arising from the administration of the original departments as parts of the Ontario College of Education "while the new organization unfolded," and details were worked out for the merger of the Ontario Curriculum Institute with the newly created Institute. He noted with satisfaction the forging of new links with the Ontario College of Education and the University of Toronto through the arrangements for the Institute to provide instruction for - and in effect to become - the Department of Educational Theory in the School of Graduate Studies of the University. The Director also observed that the Institute was striving "not only to meet but to exceed" the high standards of the School of Graduate Studies. Matters of organization, staffing, and planning for the many activities of the Institute were central concerns of the first year.

At the close of the year the Director rejoiced that: "The stage of hectic planning and growth, with little time left for the conduct of studies and other directly productive activities, is over." Subsequent events did not match completely the Director's optimism. Productive activities did indeed increase, if one may judge by the large number of new courses and projects initiated over the next few years. Internal tensions, however, continued at such a high level that some within and outside the Institute questioned whether an institution so conceived and staffed could resolve its own conflicts sufficiently to produce any significant impact on education.

Dissatisfactions were expressed by Institute staff members with regard to planning, organization, government, leadership, balance among activities, and relationships with other agencies. Criticisms expressed by school board members and legislators found their way into the Press. Many school people apparently began to lose hope that the Institute was likely to provide much help with acute problems of education. Dissatisfaction with the performance of the Institute has not subsided, although strenuous efforts have been made to strengthen the Institute wherever serious weaknesses were exposed.

INSTITUTE PROBLEMS IN BROADER PERSPECTIVE

Some of the more baffling problems, which generate dissatisfaction with Institute performance, are confronting education change agencies in nearly every nation. In the United States the new research and development agencies, which were established in the middle sixties under Congressional legislation and managed through the U.S. Office of Education, became targets of deadly barrages of criticism before they were fully operational. Subsequently, funding was denied to two of the original ten university centres and nine of the twenty regional educational laboratories. In a background paper prepared in the spring of 1971 for the US House of Representatives' Select Subcommittee on Education, the writer of this report on the Institute called attention to the unrealistic expectations for early results and noted that the attempt "to apply systematic, large-scale research and development to education" started near point zero with respect to:

> tested models or theories for producing planned change in an enterprise as complex, tradition-bound, and fragmented as education;
>
> knowledge in validated, readily available, form to guide specifications of objectives and processes;
>
> ability to plan a complex of interrelated activities leading from recognition of a need through all the steps required to satisfy the need;
>
> persons adequately trained and/or experienced in the application of systematic problem-solving and solution-testing processes to education;
>
> managerial capability for organizing, directing and co-ordinating teams of specialists engaged in complex tasks of design and development;

proven strategies for involvement of multiple educational agencies and concerned persons in planning, adaptation, and use of new approaches and facilities; and

consensus on the results achievable and conditions essential for successful operation.

The low "state of the art" of educational research and development tends to be ignored by those who look for instant products, major breakthroughs, quick solutions to tough and persistent problems, or immediate reform of education. The danger is that unrealistic, and often conflicting, expectations may lead to loss of essential support for innovatory agencies before the potential of a new approach or institution can be demonstrated. Many of the criticisms of the Ontario Institute for Studies in Education reflect impatience with the time required to develop staff expertise, fill gaps in knowledge, and master the complex processes required for development and implementation of innovations capable of producing measurable improvement in education.

Other problems with which the Institute is struggling reflect its origin and the conditions attending its establishment. The Institute absorbed agencies around which deep loyalties centred and which related closely to influential educational lobbies. As these pre-existing organizations underwent transformation as parts of the new Institute, many ties were broken with school authorities and professional groups. Rapid staff expansion and the addition of new departments produced a staff in which there were sharp disagreements as to whether the major emphasis of the Institute should be on research, development or dissemination and services to schools. These differences were accentuated by problems of communication within the Institute.

The emphasis placed on building a strong programme of graduate studies to produce specialists for research, teaching, etc. prompted the recruitment of scholars with deep attachment to the academic values of independence and individual control over research activities. These values are difficult to reconcile with programmatic research and development which require close specification of objectives and careful management to assure that performance criteria and deadlines will be met. The very shortage in Ontario of highly qualified specialists, which the Institute was designed to alleviate through its graduate programmes, led to the recruitment of staff from outside Ontario and, consequently, to criticisms respecting undue American influence and the employment of persons not familiar with Ontario education.

The preponderant academic viewpoints gave rise to demands for academic autonomy and a larger voice in policy-making for the Academic Council. Student demands for a stronger voice in decisions and the commitment of many staff members to concepts of participatory democracy led to a series of attempts to weaken administrative authority and broaden the base for decision-making. Much time and energy were consumed in committee sessions and other meetings, with the result that decisions were debated interminably, the fixing of responsibility became difficult, and those in status positions sometimes seemed reluctant to exercise leadership lest they be regarded as authoritarian.

While the Institute was struggling with its internal problems, its relationships to other education agencies in the Province were complicated by the reorganization of school districts and changes in the Ontario Department of Education. The Department not only created regional centres to bring its personnel and services closer to the schools, but also moved to change the functions of its personnel from inspecting to consulting. Thus, the Department was engaged in establishing its new character at the same time as the Institute was seeking its own identity. The essential effort to work out different functions and roles for the Institute and the Department was delayed because of this conjunction of events.

The problems encountered led the Institute through successive attempts to modify the governing structure, to reorganize internally, to shift the balance of activities more strongly toward development of products designed to improve instruction and educational achievement, and to establish more effective two-way communication with the Department, county and city school districts, colleges, universities, and professional associations. None of the problems has been fully solved; but any one who looks closely, unless he is a confirmed pessimist, will find evidence that the Institute is becoming master of itself and girding its powers for a succession of important contributions to the improvement of education.

Chapter III

ORGANIZATION, ADMINISTRATION, AND THE SHAPING OF POLICY

The flow of power and influence on the making and implementation of Institute policy exhibits many cross currents so that at any given time considerable disagreement may be found both as to the direction in which the Institute is moving and the direction in which it should be moving. The complexity of the decision-making processes becomes evident as one examines the evolution of the formal structure, the deliberations of the Academic and Administrative Councils, and the work of numerous committees, advisory groups, and review boards.

The Legislative Assembly undoubtedly has the ultimate authority over the Institute which it created to serve stated public purposes; but it has elected to grant a large degree of autonomy, leaving control in the hands of the Institute's Board of Governors. That body, in turn, has tended to act largely on recommendations made by the Institute Director, who communicates recommendations growing out of staff deliberations in the Academic Council and elsewhere. These recommendations, out of which Institute policy emerges, are influenced by formal structures, interpersonal interactions, and the underlying interplay of the values and perspectives of Institute staff and external groups. The changes in the organization itself tell part of the story.

THE DIRECTOR'S OFFICE AND SUPPORT SERVICES

The Director, as senior executive officer, is generally responsible for the administration of the Institute, and his Office performs certain services for the Institute as a whole. In his capacity as Secretary-Treasurer of the Board, the Director maintains minutes of all meetings of the Board and its standing committees, transmits decisions and policies of the Board to the appropriate bodies, prepares agenda for meetings, receives monies due to the Board, disburses monies authorized by the Board, and maintains records of revenues and expenditures.

The Director since the Institute's formation, Robert W.B. Jackson, Ph.D., LL.D., F.R.S.S., F.C.P., had previously, as Director of the Department of Educational Research in the Ontario College of Education, formed a close working relationship with the Minister of Education, William G. Davis, who was the key person in bringing the Institute into existence; and, with the assistance of Dr. W.G. Fleming and other colleagues, he worked closely with the Minister to plan the Institute functions and structure.

Dr. Jackson is deeply committed to the concept of the Institute and has a justifiable pride in its accomplishments to date. As any reader of the Annual Reports will learn, however, Dr. Jackson is sharply aware of the shortcomings and unsolved problems. He apparently has come to feel that the Institute can and will find itself through the efforts of many and he seldom tries to impose solutions. His leadership can hardly be called aggressive; instead it is characterized by patience, persistence, and a keen awareness of the forces at work. That at any rate is the impression that remains after extensive reading of documents and hundreds of hours of discussions with critics and supporters of the Institute - and both terms apply aptly to every staff member and external informant encountered.

A substantial amount of the internal management of the Institute is delegated to the Assistant Director so that the Director may devote more time to establishing effective working relationships with other educators, educational agencies, and members of the general public.

The present Assistant Director, John H.M. Andrews, Ph.D., has held this office since 1968. His responsibilities include ensuring co-ordination among the Institute's major functions of graduate studies, research and development, and field development; supervising the activities of departments and divisions in matters not directly related to these major functions; recommending to the Director all new appointments, transfers, promotions, salary changes and all personnel matters; supervising budgets, budget transfers, and expenditures that require approval, and generally taking whatever action is considered necessary to the effective operation of the Institute. In addition, the Assistant Director is chairman of the Administrative Council and its Executive Committee.

The Assistant Director works closely with the Academic Services Officer, who is responsible for co-ordinating certain activities that support the teaching, research and development, and field development activities of the Institute. These activities include Library, Publications, Conferences, Media Services, and some aspects of Personnel. The Academic Services Officer also performs other duties assigned by either the Director or Assistant Director.

Brief mention only will be made of the support divisions and services which are essential to the smooth functioning of the Institute and the performance of all staff members. In 1970-71 there were five administrative officers coming under the broad category of support services:

Head, Editorial Division;
Director, Educational Clinic;
Superintendent, Finance;
Superintendent, Internal Services;
Chief Librarian.

INTERNAL ORGANIZATION

At first glance the organization of the Institute appears deceptively simple and familiar. The basic administrative units are departments, each headed by a chairman and composed of from four to twenty faculty members. The staff of these departments discharges the functions of teaching, research, student counselling, supervision of theses, and occasional services to schools and other organizations in much the same way as they might be performed in any large graduate department or college of education. But there are some differences which have consequences which will be discussed later. At this point, however, mention may be made of a fact which reinforces the academic image; that, in addition to being basic units of OISE, the departments serve as units in the Department of Educational Theory of the School of Graduate Studies of the University of Toronto. This arrangement, under which the Institute foregoes the granting of graduate degrees in favour of degrees granted by the University of Toronto, brings University influence to bear on the qualifications of staff and on the requirements for admission to, and the standards for performance in, degree programmes.

At present there are ten departments:

Adult Education
Applied Psychology
Computer Applications
Curriculum
Educational Administration
Educational Planning
History and Philosophy of Education

Measurement and Evaluation
Sociology in Education
Special Education

Functions which weigh more heavily on OISE departments than on typical graduate departments of education are those of development, dissemination, and implementation which were expected to combine with research and graduate training to form a diverse but well-integrated set of approaches to educational improvement. For some of the tasks involved in the realization of this concept, the academic model of organization proved poorly adapted. To remedy this shortcoming, three co-ordinating offices were established to assist the Director's Office in providing stimulation and co-ordination of main Institute functions and activities. These are:

Graduate Studies
Field Development
Research and Development

The Office of the Co-ordinator of Graduate Studies was established in the first year of the Institute and has continued virtually unchanged under the leadership of George E. Flower, who came to the Institute with the Department of Graduate Studies which he had led at the Ontario College of Education. The staff of the Office of Graduate Studies includes an Assistant Co-ordinator, three faculty members and two graduate assistants. The Co-ordinator and his staff (through compilation of data, periodic reports, occasional papers, meetings with department chairmen, and budget administration) exercise a gentle but pervasive influence towards greater responsiveness to the Ontario educational community, closer relationships to research and development programmes, inter-departmental collaboration, and examination of priorities within and among departments. The Co-ordinator also links OISE Graduate Studies to the University through his role as Chairman of the University of Toronto Graduate Department of Educational Theory.

Formerly, a Graduate Studies Review Board, composed of faculty members from several departments, weighed proposals for new courses and recommended guidelines for programme assessment to the Academic Council Standing Committee on Graduate Studies, the Graduate Studies Co-ordinating Committee, and the Academic Council itself. The approved guidelines were then applied by the Review Boards to examination of each department's programmes as a basis for recommendations regarding budget allocations. Under the changes in structure recently adopted the Graduate Studies Review Board and the other committees referred to above have been replaced by a single Graduate Studies Standing Committee composed of one faculty member and one student from each department and five external members.

The Office of Field Development has evolved through several redefinitions of functions and changes of name into the present office which has general responsibility for relating Institute programmes to the needs of Ontario. Dr. Kenneth F. Prueter, who has been associated with the Institute from the first year, has been a persistent spokesman for close two-way communication with school practitioners. There is a small central staff in the Office of Field Development which assists the Co-ordinator in developing and co-ordinating regional offices and in working with the Department of Education, teachers' organizations, and many other educational groups. The five field development centres, which were in operation in 1970, are listed below:

Centre	Location
Niagara	St. Catherines
Trent Valley	Peterborough
Western Ontario	London
Northwestern	Thunder Bay
Midnorthern	Sudbury

Two other centres have since been established: Midwestern Centre at Kitchener-Waterloo and Ottawa Valley Centre at Ottawa. Plans are also being made for three other centres which will bring the total to ten corresponding to the ten regions of the Ontario Department of Education.

Policy for field development has been formulated with the assistance of an active Development Advisory Committee, chaired by a Board member and made up largely of representatives from the Ontario Teachers' Federation, the Department of Education, the Ontario School Trustees' Council, and the Ontario Association of Education Officials. Under the new structure this committee and the Development Review Board are fused in the new Development Standing Committee.

The title of the original office of the co-ordinator of studies was changed later to Co-ordinator of research. In 1968-69 the Office was designated as Co-ordinator of research and development. In 1970 it was again reorganized and its functions clarified to emphasize identification of major educational problems, and the setting of priorities and mobilization of resources for major programmes, and evaluation of R and D programmes and policies. David Brison, then Head of the Niagara Centre and before that Chairman of Applied Psychology, was appointed Co-ordinator and assumed his new post in July, 1970. He immediately organized a small support staff including an assistant co-ordinator.

Since that time practically the entire staff of the Institute has engaged in an arduous, time-consuming, and often frustrating attempt to evaluate and re-order research and development activities in order to concentrate resources on major thrusts focused on important problems in Ontario education. Because of the widespread involvement and the importance of the outcomes, a summary of the processes used and the results thereof is presented later in the section on Decision-Making (page 120).

THE ACADEMIC COUNCIL AND OTHER POLICY-FORMULATING BODIES

In the Institute's organizing statute the Board was directed to establish an Academic Council with powers and duties as prescribed by the Board. In his first annual report, the Director noted that the Academic Council which was composed of all members holding the rank of assistant professor and above could make known their views on administrative policies, organization, staff welfare, and professional responsibilities. But "obviously, responsibility and authority for the administration and operation of the Institute are excluded from their terms of reference as defined by the Board of Governors." However, there is evidence that the Board, in deference to the knowledge and ability of the Director and his staff, fell easily into the habit of accepting and acting on the suggestions of the Director, and the Director looked to the Academic Council increasingly as a recommender of policy.

By the third year, the Academic Council was perceived by many as the chief policy-recommending body, a function which is more or less implicit in the Board By-Laws which provided that the Council's responsibilities are:

1) to suggest to the Director such administrative policies as will facilitate the most effective attainment of the objectives of the Institute;

2) to suggest to the Director structural or organizational changes in the Institute;

3) to develop a pattern of professional responsibilities and obligations for academic staff members;

4) to suggest to the Director measures relating to the welfare of academic staff members.

At its first meeting on September 28, 1965, a consensus appeared to emerge that the Council is primarily a policy-shaping body, concerned with the overall research and instructional plans of the Institute, and a medium through which the academic staff helps to determine the programme of the Institute. It was recognized that the Council should not intervene in day-to-day administration, the approval of specific projects within a division, the hiring of staff, or the allocation of funds; but it was expected that the Academic Council would be deeply concerned with:

a) the broad nature of long-term research projects being planned by divisions and their relation to other studies in the Institute;

b) the character of the graduate programme and specific proposals for course content, new courses, inter-divisional courses.

One Council member, noting that Academic Council decisions have the formal status of recommendations to the Institute Director, suggested that the existence of the Academic Council with its broadly defined functions and decision-influencing role is "the clearest embodiment of the concept that the fate of the Ontario Institute for Studies in Education depends not only on the qualities of individual faculty members, but on their ability to interact freely on all matters of concern to the Institute."

In February 1966 the Director requested "some regularized and organized procedure" whereby Academic Council recommendations could be brought to his attention and, in the Council meeting of 23 February 1966 it was agreed that this would be done through the Secretary after each Academic Council meeting. The Council, at its June meeting that year, asked the Director "to consider appropriate ways to acquaint the Academic Council with the work of the Board of Governors and to acquaint the Board with the work of the Academic Council." The result was an arrangement whereby the Executive of the

Academic Council met informally with the Executive of the Board of Governors.

The Director generally accepts the recommendations of the Academic Council and either considers how they can be implemented internally or presents them to the Board with his endorsement. In general, the Council's role as a policy-recommending body was respected by the Board. At its meeting in October 1968, however, the Council reacted after the Board had created a new position of Academic Services Officer and filled the vacant office of Assistant Director by requesting that "further structural changes and appointments be delayed until adequate consultation can be held with the Academic Council."

The Academic Council became a forum for debate and it has doubtless served as an escape valve for faculty tensions. Although it has proved somewhat unwieldy as a mechanism for the formulation of policy or the resolution of basic issues, it has contributed to a continuing re-examination of Institute policy. Its influence on the whole has been on the conservative side; and the difficulty of winning Council support for new ideas at times has impeded needed changes in Institute structure and policies.

The identification of problems and needs requiring Institute attention is a continuing concern of the Director and other officers. One informed view is that the "major constructive developments in the life of the Institute have been initiated by the administration and have been put through in one way or another despite clamorous initial objections of the faculty group." Policy changes cited as originating with the administration include the development of large planned projects as opposed to exclusive reliance on random individual projects, major emphasis on development instead of exclusive concentration on research, recognition of the importance of real educational problems as opposed to esoteric journal articles, measures to increase the productivity of many members of the faculty, and the establishment of an active field centre programme. These policies, initiated by the central administration, have been implemented in a variety of ways, one of which was the introduction of a budgeting system designed to produce the desired results. The working out of appropriate strategies and changes in Institute operations is carried forward through the Director's Council composed of the Director, Assistant Director, the three Co-ordinators, and occasionally the Director of Academic Services. The Administrative Council, the standing committees, and ad hoc committees all play important parts in shaping proposals for consideration by the Academic Council and the Board of Governors.

Most matters regarding courses, departmental staff assignments, and other matters not under the control of individual faculty members are resolved through the offices of the several chairmen or through department councils and committees. The Administrative Council, however, has served as an instrument of interdepartmental co-ordination and at times as a launching pad for innovations in policy, organization, and procedures.

The development of the Administrative Council was a gradual process. As early as 1964-65, when plans for the establishment of the Institute were under way, the Acting Assistant Director of the Department of Educational Research was holding informal consultative meetings with a small group of academic staff. After the Institute was formed, the same man, as Assistant Director and Co-ordinator of Studies, continued to preside over meetings of division heads (and occasionally invited visitors, frequently from the Department of Education) and then channel recommendations to the Director. This Studies Group, as it was called, was not thought of as an organ of the Institute. Rather, it was considered merely a means of discussing policy matters and helping administration.

In 1966 there was a feeling that the group should be formalized. In November of that year, therefore, the group was renamed the Administrative Council, and its membership and role were officially established. As previously, its membership consisted of the Heads of academic departments, the three Co-ordinators, the Assistant Co-ordinator of Graduate Studies, and the Director. Chairmanship was to be "carried jointly by the three Co-ordinators according to the area of responsibility of the particular agenda item under discussion." The Director and the three Co-ordinators constituted the Executive.

ATTEMPTS AT REORGANIZATION

In September 1967 the Academic Council formed a committee to undertake a study of matters affecting the Institute both internally and externally. This committee was called the Academic Council Committee on Future Growth and Development of the Ontario Institute for Studies in Education and was composed of the chairmen of the existing standing committees of the Academic Council. This Council committee made a study of Institute programmes and financing and presented a report which served as a basis of discussion at the Academic Council conference in autumn 1968. At the end of that conference, a motion was passed which became the basis for a Task Force on objectives, programmes, and structure. This Task Force was made up of two members of the Academic Council, one representative of the Administrative Council, two of the Graduate Students Association, one of the Association of Research Officers, one of other professional staff, and one of the Board of Governors, plus the Assistant Director. The Task Force was requested to make recommendations concerning

1) current purposes and objectives of OISE development and implementational policies and programmes to realize these objectives;
2) Institute structure, with special reference to functional divisions of responsibility, departmental organization and decision-making structures; and
3) strategies for accomplishing educational change through OISE.

The Task Force held its first meeting on 8 January 1969 and submitted its report in November of that year.

It decided not to attempt to specify objectives for the Institute, but instead to focus attention on Institute structure and government. Its report was prefaced by a statement of what it called principles, the first of which, interestingly enough, was that objectives cannot be fixed, apparently because of lack of consensus among individuals and groups and because "conditions inside and outside the Institute would be changing." In line with this latter thought, the Task Force's second principle was responsiveness to the changing needs of education, especially those of the Province; a third principle was representative government, to be applied to all categories of students and staff on all governing bodies of the Institute; a fourth was simplicity, to be achieved by the reduction in the number of committees and a distinction between the administrative and legislative functions; and the final principle enunciated was easy flow of communications, to be facilitated by having representatives of each category on all major committees.

As a result of its work, the Task Force offered 112 specific recommendations. Of 19 recommendations dealing with the government of the Institute, the central one was the establishment of a bicameral system of government to consist of the Board of Governors and a Senate. With regard to programme areas, the chief recommendation was that departments should be concerned primarily with the provision of graduate instruction and that projects should be attached administratively to the Office of Research and Development. Some 20 recommendations dealt with committees, most of which centred on the establishment of five co-ordinating committees. It was also recommended that the Institute approve advisory committees for each of the three programme areas of Graduate Studies, Research and Development, and Field Development, these being joint committees of the Board and Senate.

Meanwhile, a Special Committee of the Board of Governors to study and make recommendations on the government and structure of the Institute was appointed and met eleven times during the year from September 1968 to September 1969 (including a half-day session with the Task Force referred to above). In the introduction to its report it acknowledged that "uncertainty about the purposes, activities, and decision-making processes of the Institute had created an atmosphere of considerable tension ... reflected in widespread and increasing dissatisfaction within and outside the Institute over the degree to which the basic objectives of the Institute were being achieved." The Special Committee attributed these criticisms in part to unrealistic expectations, but acknowledged that "the three prime functions of the Institute had not been carried forward with the emphasis and balance which the founders of the Institute had conceived." It pinpointed the "disappointments" as falling mainly within the area of applied research and development activities leading to innovations within the schools, and noted that in general satisfactory progress had been made in the development of graduate teaching and that "many faculty members had pursued sound basic research."

The Special Committee also noted resentment on the part of many of the faculty that its Academic Council was a creature of the Board, although the Council had "gradually become the chief policy-proposing body .... and the Board had accepted with only minor modifications most of the recommendations of the Council." The thirty-six recommendations of this committee agreed substantially with the major proposals of the Task Force of the Academic Council. Among them was a proposal for a new operating structure to consist of three divisions: one concerned with graduate instruction and the research studies of individual faculty members; the second with research and development projects organized around thematic centres; and the third with field development.

A Joint Committee on Institute Structure was established to consider the reports of the Task Force and the Special Committee of the Board of Governors. The Committee was composed of representatives of the Academic Council, the Administrative Council, the Association of Research Officers, the Association of Teaching Staff, the Board of Governors, the General Supporting Staff, the Graduate Students Association, and the Professional Staff Association. After almost four months of study and discussion, the Committee submitted its report on 12 June 1970. Subsequently, in keeping with procedures agreed upon by all of the bodies represented, the report was submitted to each for its approval and possible amendment; and the feedback was collated for consideration by the Joint Committee.

The Joint Committee rejected the concept of a bi-cameral system of government as recommended by the Task Force and the Special Committee, but proposed a deliberative assembly called the Institute Council, composed of:

a) representatives of the external public (40 per cent);
b) representatives of the Institute staff (40 per cent);
c) representatives of the Institute students (20 per cent).

It further proposed that the representatives of the external public also be constituted as the Regents of the Institute, which shall be the corporation with final authority in financial and personnel matters.

The Joint Committee recommended the following standing committees, advisory committees, and review boards:

Graduate Studies Standing Committee;
Research and Development Standing Committee;
Field Development Standing Committee;
Media and Communications Standing Committee;
Budget Standing Committee;
Administrative Services Standing Committee;
Academic Services Standing Committee.

It was proposed that standing committees be empowered to make recommendations to the Institute Council on policy and budget allocations, and recommendations regarding the interpretation and implementation of policy to the officials responsible. Provisions for the composition and functioning of standing committees were worked out with care, as illustrated by the following specifications for the Research and Development Standing Committee:

"a) The Research and Development Committee will be composed of twenty persons: five faculty members, two students, and three academic supporting staff members, and ten elected by the Institute Council. Of the latter, at least six must be external members, and at least two of the six must be Regents.

b) The Co-ordinator of Research and Development Studies or his alternate will be an ex-officio member of the Committee, and its executive officer.

c) The Research and Development Standing Committee will set up one or more review boards, (i) to study and make recommendations on policy matters referred to them by the Standing Committee, and (ii) as delegated by the Institute Council, to review and take action on proposals, subject to the Institute Council policies.

d) The Committee and its subcommittees will replace the Academic Council Standing Committee on Research, the Academic Council Standing Committee on Institute Developmental Projects, the Research Review Board, and the Development Review Board."

Recommendations for other standing committees likewise reflected thoughtful attempts to relate the composition and procedures to the functions to be performed.

The major recommendations of the Joint Committee have been approved by all constituent bodies, by the Academic Council, and by the Board of Governors; and the proposals respecting internal structure have been put into effect. Moreover, the Academic Council is being replaced by an Institute Assembly modelled on the proposed Institute Council except that it includes as external members all of the present Board of Governors, which will continue in its present form pending action by the Provincial Legislative Assembly.

As previously noted, key decisions tend to take shape in the meetings of the Director's Council, the Administrative Council, and important ad hoc committees (such as those described above) before being ratified by the Academic Council and the Board of Governors. The three Co-ordinators, the Assistant Director, and the Director exercise their leadership in large part by making their knowledge and advice available to these groups and by seeing that critical issues find a place on the agendas. It is usual for the chairmanship of important committees to be assigned to an appropriate officer of the Institute. For example, the Assistant Director chaired the Task Force, and the Director the Joint Committee.

DECISION-MAKING ILLUSTRATED

An illustration of the Institute's attempt to involve all staff categories and representatives of external agencies in major decisions is found in the recent review of research and development activities. The summary which follows is based largely on unpublished papers which established the procedures for, and reported on, the various stages of the 1970/71 review of R and D programmes conducted under the auspices of the Joint Research and Development Review Boards with the assistance of the Office of Research and Development Studies. The documents referred to include: an updated paper of twenty-one pages entitled "Developing Priorities for Research and Development", which was presented for discussion by a representative of the Budget Review Committee, and a representative of the Office of Research and Development Studies; a 14 page paper dated November, 1970, entitled "Proposals for a Balanced Programme of Research and Development", submitted on behalf of the Joint Research and Development Review Boards; "Study Team Reports" on each of the several departments, prepared in the fall of 1970; and a document (revised edition) of thirty-three pages, excluding appendixes, entitled "Reports to Departments of Education and University Affairs Concerning Review of Research and Development in Education."

These documents may serve as milestones along a partially charted road - through greater coherence among projects, closer collaboration of faculty and other staff within and across departmental lines, and identification of Institute capabilities within areas of major need - toward fully integrated large-scale research and development operations, involving a concentration of scholarly and technical talent and other resources for the solution of major problems or the advancement of important educational objectives. Progress along this line was envisaged by Institute leaders from its inception, but it has taken time to chart the routes and to develop the necessary motive power.

Dissatisfaction with contributions of the Institute to development of instructional systems and other products to enable schools and other educational agencies to attain their objectives more effectively has been expressed throughout the Institute's history by the Institute staff and by those engaged in teaching and educational administration. The desire to give greater emphasis to problem-oriented and goal-oriented research and development led to a succession of internal reorganizations that resulted in the creation of the Office of Research and Development Studies in its present form.

Partly because of the criticism of the lack of large-scale development, the Research and Development Review Boards in 1970 adopted new procedures for conducting an analysis of the research and development in the Institute. These new procedures, which were based on decisions approved in the spring of 1970 by the Academic Council and later ratified by the Board of Governors, were designed to enable the setting of priorities for all research and development and the realignment of the R and D portion of unit budgets. In their recommendations for budget realignment in the spring of 1970, the Academic Council not only advised the Review Boards to identify priority areas but also stipulated that "major thrusts" be established within the priority areas. The major thrust projects could take a variety of forms and be organized as projects within a department, as inter-departmental projects, or as supra-departmental projects administered through the Office of Research and Development Studies. The major thrusts were to be characterized by high visibility and strong generalizable impact on the educational system. To qualify as a major thrust, a project had to be supported by evidence of sound design, adequate organization and management, clearly stated objectives, adequate provisions for evaluation, careful planning of the means of making the results useful to the educational system, and other criteria intended to assure careful planning and good use of resources. (For descriptions of major thrusts, see the section on Research and Development in Chapter IV.)

In addition to the major thrusts, the other levels of programme organization identified were department and inter-departmental programmes, faculty programmes and faculty projects to be funded within departments without reference to the Review Boards. There was also an identification of five general programme priority areas defined as:

1) areas of major need and demonstrated Institute contributions;
2) areas of major need and potential Institute contributions;
3) departmental programmes meeting a major outside educational need;

4) areas of major potential for inter-unit and inter-disciplinary focus;

5) international education.

To carry out these recommendations the Review Boards assigned a study team to each of the ten departments of the Institute, and one to the R and D components of the Office of Field Development. Each team consisted of two faculty members, a research assistant representing the joint Review Boards, and a person from outside the Institute chosen from a list of candidates suggested by the department being reviewed. The Co-ordinator of Research and Development or the Assistant Co-ordinator also served as a member of each of the teams. In September and October, these teams reviewed ongoing and proposed research projects and identified the areas of major strengths in research and development. The information gathered by the study teams was made available to the departments and was presented to the Joint Review Boards for use in recommending priorities for the Institute and in reviewing proposals submitted after priorities were approved and circulated in the Institute.

Following these department-by-department reviews, the Joint Research and Development Review Boards in November made recommendations based on considerations of the needs of education in Ontario in combination with the salient areas of demonstrated Institute strength as identified by the study teams. These recommendations were approved in meetings involving Institute staff and students; the Research Advisory Committee and Development Advisory Committee, representing the Ontario educational system's main components and the public at large; the Academic Council's standing committees on research and development; the entire Academic Council; and the Board of Governors. The process, therefore, was a rather cumbersome and time-consuming one, but it did produce significant results, including the definition of clear thematic areas of concentration; an increase in the mean size of projects, both in terms of staffing and funding; a reduction in the amount of support given to unreviewed pilot exploratory work by individual faculty members; and the introduction of new budgetary procedures to permit more effective management of research and development.

Chapter IV

STAFF CHARACTERISTICS AND ACTIVITIES

The purpose of this chapter is to offer additional information on Institute staff and to provide some examples of the many and varied activities sponsored by the Institute. The activities are grouped according to the function to which they relate.

CHARACTERISTICS OF FACULTY AND ACADEMIC SUPPORT STAFF

The total academic staff appears to have stabilized at approximately 135. Professors make up nearly 16 per cent of the total; associate professors 30 per cent; assistant professors 40 per cent; and lecturers less than 14 per cent. The three largest departments are Applied Psychology, Curriculum, and Educational Administration, each of which has an academic staff of 16 or more. Other departments have between 9 and 11, except for the smallest departments of Computer Applications and Special Education. Among the departments, Curriculum has the highest percentage of professors (32 per cent), followed by Adult Education (30 per cent). In the departments of Computer Applications, Curriculum, Educational Administration, Educational Planning, Measurement and Evaluation, and Sociology the ranks of assistant professor and lecturer account for over half of the academic staff. The percentage of associate professors ranges from 10 per cent in Curriculum to 50 per cent in Special Education, with six other departments having 30 per cent or more in this category. (Additional information on staff composition is found in Table 1, Chapter I.)

In response to a 1969 "background questionnaire" academic staff were revealed as a variegated group with respect to age, place of birth, educational background, teaching and administrative experience, and language proficiency. The average age of faculty is just under 40 for the Institute as a whole, Sociology having the youngest staff with an average of slightly over 33 and Special Education the oldest with an average of nearly 47.

The country of birth for nearly half is Canada; for approximately one-third the U.S.A. (at its highest, 36 per cent); and the United

Kingdom and Commonwealth nations together account for the birthplaces of 11 per cent. Over half of the academic staff are Canadian citizens, and this proportion is increasing as many born outside Canada qualify for Canadian citizenship. Nearly 60 per cent of the academic staff, however, report that their highest degrees were taken in the U.S.A. as compared with slightly over 25 per cent taken in Ontario universities and an additional 8 per cent in other Canadian institutions.

The teaching experience of the academic staff ranges by departments from an average of less than four years for Sociology to thirteen years or more for Curriculum and Special Education. A high proportion of teaching experience was gained in Canada: over 60 per cent of the total years of teaching in elementary and secondary schools; nearly two-thirds of total years in university teaching; and nearly 90 per cent of the years of teaching in post-secondary other than university. The staff has held a total of 111 administrative positions, of which 31 were in university administration and 19 in school principalships. Of the administrative posts held by the faculty, 52 were in Ontario, 25 in other Canadian provinces, and only 19 in the U.S.

In addition to English, languages spoken by the faculty include French (over 20 per cent), other European languages (under 15 per cent), Asian and African languages (over 5 per cent). Over 30 per cent of the faculty profess to read and write French and over 20 per cent other European languages; while five persons indicate ability to read and write some Asian language and two read and write an African language.

The Institute has three categories of academic support staff: research assistant (with three levels), research associate, and project officer. The total number of academic support staff is 108. Most research and project officers are full-time employees, but a few are applicants for advanced degrees. Hierarchically speaking, research officers rank after academics and before graduate assistants and general supporting staff. Females outnumber males two to one among the full-time employees and three to one among the part-time employees; males, however, are heavily represented among the highest ranks of research staff.

The Committee on Personnel Policies and Procedures for Academic Supporting Staff, in its "Report on the Research Project" in 1969, noted that the academic backgrounds of research officers range from fine arts such as music through classics and languages, and many social sciences to mathematics, physics, and engineering. Their academic qualifications are: 6 per cent, no degree or equivalent; 2 per cent, no degree but equivalent certificate; 56 per cent, one degree; 28 per cent, two degrees; and 7 per cent, three degrees. They form a group with wide variations in backgrounds, qualifications, experience, expectations, roles, levels of satisfaction, and opinions regarding the Institute.

Tasks performed include research preparation, test construction, data collection, administration, data analysis and reporting, and teaching. Each one of these task areas, of course, includes both creative, stimulating work and trivial, mechanical tasks. Research officers also differ in career expectations. Many regard appointment at OISE as a career in itself, seek professional status as researchers, and are concerned with such matters as clear definition of roles, increased responsibility, and in-service training. Others regard work at OISE as interim and intend to move on to further study, academic careers, jobs elsewhere, or marriage.

THE PROGRAMME OF GRADUATE STUDIES

The programme of graduate studies constitutes a keystone around which other activities of the Institute cluster. This feature was prominent in its original design. One of two objects specified in the Act of 1965 was to conduct courses leading to graduate degrees and certificates of standing; and the programme of graduate studies started with the two departments transferred by the Act from the Ontario College of Education. Moreover, all activities of the Institute draw heavily on academic staff and academic support staff who are members of departments which include graduate studies in their responsibilities.

The number of graduate degrees awarded increased from 167 in the first year, 1965-66, to 439 in 1969-70, with the biggest percentage increase occurring in 1968-69. Of the total of 439 degrees awarded in 1969-70, 15 were Ph.D.s, 8 Ed.D.s, 33 M.A.s and 383 M.Ed.s. For the fall semester, 1970-71, the full-time enrolment was 382 and the part-time enrolment 879. Among the departments, Applied Psychology led all others with 118 full-time and 205 part-time students, followed by Curriculum with 49 full-time and 218 part-time students, History and Philosophy with 38 full-time and 76 part-time. Other departments with more than 100 full- and part-time students combined were Adult Education, with 28 full- and 87 part-time, Educational Administration with 25 full- and 95 part-time, Special Education with 26 full-time and 91 part-time.

According to a report by the Co-ordinator of Graduate Studies, OISE within five years reached the point where their graduates represent more than one in six of the graduate degrees conferred by the University of Toronto; and the Bulletin for 1971-72 notes that of approximately 6,000 graduate students of the University, 1,300 are at the Institute. Of the latter, 380 are registered as full-time students and 165 of these are Ph.D. candidates. These figures testify to a dramatic increase since 1965-66 when the number of full-time enrollees was 101, and the number of Ph.D. candidates was 12.

There has been a 450 per cent increase in course offering over the six-year life of the Institute: only 51 courses were offered in 1965-66, by 1967-68 the number was 160, and in 1970-71 there were 281 courses. This expansion represented in part responses by departments and individual faculty members to perceived needs, and in part it reflected the latitude given to faculty members to pursue their own interests. Such review of programmes as occurred prior to 1970-71 was largely intra-departmental; but in the past year the Graduate Studies Review Board, faced with the prospect of a reduced budget, gave its attention to working out sound bases for programme and associated budget decisions; and this task will be carried forward by the Graduate Studies Standing Committee of the Institute Assembly, which replaces the Graduate Studies co-ordinating Committee and the Academic Council Standing Committee as well as the Review Board.

In October 1970 the Office of the Co-ordinator of Graduate Studies reported evidence of departmental responsiveness to the needs of the Ontario educational community, of which the following items are examples:

> "Adult Education has established certificate programmes for able practitioners in influential positions, students whose academic qualifications may bar their admission to the School of Graduate Studies but whose outlook and grasp of their work suggests they will profit from further study.
>
> "History of Education has emphasized an M.Ed. programme (after-hours and summers) in response to a field demand for study to provide an historical perspective from which to comprehend the rapid change of educational policy.
>
> "Educational Planning is actively involved in the identification of practitioners for training as planners, with a view to rearranging doctorate requirements so that the practitioner/student

may pursue his doctoral research for a year on his home job site.

"Sociology in Education has developed courses which require study directly in schools; this is part of the normal course work but is also related intimately to the department's research and development programme.

"Educational Administration has moved deliberately to what is virtually a semester system of course offerings in order to facilitate the establishment of half-year sabbatical leave for practising administrators who wish to study at OISE but cannot, for a variety of reasons, take a full year's sabbatical leave.

"Applied Psychology's sub-specialization in Educational Psychology, which requires very substantial background in psychology itself, incorporates an entire half-year of school-based experience in order to combine high-level training in psychology with sensitivity and perspective about school problems.

"Computer Applications has increased its part-time M.Ed. enrolment sixfold in the past two years in response to the demand for personnel returning to school system with a general knowledge of programmes emphasizing instructional technology.

Further changes in the programme of graduate studies may be anticipated both as a result of internal reviews and re-ordering of priorities and as a result of the replacement of the single grant by formula financing for graduate studies. Under the new arrangement the Institute's graduate programmes will be supported through the Department of University Affairs on the same basis as any other Ontario university. (Additional money for research and development and field development will continue to be provided directly through legislative appropriations.) The formula basis makes student enrolment an important factor in operating revenues. At the same time, the amount of financial assistance to students is being reduced.

The Office of the Co-ordinator of Graduate Studies is increasing emphasis on flexibility and individualization of programmes and proposes to undertake a survey to reveal unmet needs for graduate study and to project the demand for administrators, curriculum consultants, school psychologists, educational planners, and other specialists. A longitudinal study of students is also proposed to assess the value and relevance of experiences provided by the Institute to careers and continuing education.

RESEARCH AND DEVELOPMENT

Research and development in the Institute started with projects inherited from departments of the Ontario College of Education and from the Ontario Curriculum Institute. Some of these were completed and phased out but some have continued in somewhat altered form to the present time. As new staff appointments were made new studies and projects were initiated. Moreover, the situation favoured the proliferation of projects in several ways. First, many of those appointed were young academics eager to make their reputations through research and publications. Second, each academic staff member was given a light teaching load and expected to devote half his time to research. Third, departments disposed of relatively large sums of money, by comparison with usual university departments, for the purpose of hiring support staff to assist in faculty members' projects. Although in some departments the support funds were spent on large projects, the departmental structure modelled on that of universities frequently encouraged individual small scale research and development.

As a consequence of the stimulation of individual initiative and the lack of planning of team efforts directed at major targets, the number of projects grew until they totalled over 300, or an average of between two and three per faculty member. Sharp criticism both from within and outside the Institute arose from both the proliferation of projects and the failure to mount large-scale and carefully planned development programmes directed towards meeting the pressing needs of Ontario schools. Finally, the reorganization of the Office of Co-ordinator of Research and Development and continued agitation by many Institute officers and staff members who deplored the lack of programmatic research and development led to the review processes described in Chapter III.

The major results claimed for this review in a report from the Office of Research and Development Studies may be summarized as follows:

1. An increase in the mean size of projects through regrouping of related smaller activities into three major thrust areas and co-ordinated work at the departmental and inter-departmental levels, with over 50 per cent of existing support staff and operating expenses allocated to these activities. (The programmes approved as major thrusts, inter-departmental and departmental, are described briefly in the pages that follow.

2. The definition of clear thematic areas of concentration related to areas of major need. (Thematic areas refer to the grouping of programmes under such categories as Canadian studies and bilingualism, innovative learning, productive thinking.)
3. Institution of new budgetary procedures to permit more effective management of R and D.
4. Reduction of support of unreviewed pilot exploratory work for individual academic staff to less than 5 per cent of total support with the remainder of what was originally allocated for this purpose being put into a contingency fund.

Several comments on the procedures followed in 1970-71 and the results obtained seem justified. First, the process of evaluation, review and budgetary allocation was extremely cumbersome. It consumed large amounts of time on the part of faculty members and research officers in preparation of abstracts and proposals, in serving on study teams, and in participating in discussions and reviews. Second, the processes and the decisions evoked considerable criticism which was directed not only at the amount of work involved but also, in some cases, to the competence of study teams and subcommittees of the Review Boards. Third, in spite of the emphasis given to major thrusts, the initial budgetary allocations to this level were substantially below the allocations for departmental and faculty projects. Fourth, the attempt to squeeze existing projects into the semblance of larger units is not a good substitute for a systematic approach to the design of major undertakings.

On the positive side, the following points may be noted. First, the process gave opportunity for widespread involvement of faculty, research officers, and students within the Institute and also of the Board of Governors and of advisory groups representing all components of the Ontario educational system. It also involved the use of consultants identified with research and development in other agencies inside and outside of Ontario. A second positive result was that many members of the Institute became more conversant with the requirements for effective research and development operations in education. A third result was the easing of communication regarding research and development across departmental lines. A fourth positive consequence was that experience with the decision-making process may lead subsequently to reconciliation of the values of widespread participation on the one hand and expert judgment on the other, so that future review processes may be less cumbersome and more effective. A fifth gain to be anticipated is improved planning of research and development projects in the future.

The number of projects is too large to permit even a thumbnail description of separate projects, but brief abstracts are included here of four programmes designated as major thrusts; three more or less representative of inter-departmental programmes, and three intra-departmental programmes.

The following were approved as "major thrusts":

> An Elementary School Thinking Programme. The general aim of this major thrust programme is to develop instructional materials in the area of thinking for students from pre-school level through Grade 8. The programme will, on the basis of an operational definition of productive thinking, develop intervention schemes, using teaching with textbooks, self-instruction, and multi-media materials to improve thinking in all students. The thinking programme will be incorporated ultimately in school subjects that depend on rational thought, as an essential part of the subject discipline. This programme has six sub-projects.
>
> Studies in Educational Policy Planning and Performance. There is increasing pressure in Ontario (and throughout North America) for schools and educational agencies to plan for their future more effectively and also become more accountable for their performance. This major thrust programme is directed towards this problem; it has as its aim to provide, over a 3-to-5 year period, a comprehensive approach to the exploration of choice in the educational setting. It takes into account the critical element of being able to evaluate among choices, and recognizes that methodology *per se* is not sufficient to bring about effective policy decisions. Organizational development is seen as essential to the process of assisting and implementing more effective policy and planning activities in education. There are four components of this programme.
>
> A Programme of Canadian Studies. A Canadian Studies Centre will be established within OISE, headed by a professor and staffed by a project officer and support staff. The programme will include collecting materials about Canada and bringing these materials to the attention of curriculum developers;

also stimulating development of curriculum about Canada both within OISE and in other settings. In addition, the project will co-ordinate ongoing research and development activities in the area of Canadian Studies within OISE.

Programme on Innovations and Alternatives in Education. This major thrust programme is designed to focus more of the Institute's resources on an essential education function: that of providing assistance for innovation in the provincial educational system on a systematic and continual basis. The major thrust incorporates six "subprogrammes", each of which focuses on one clearly identified system of activities related to the overall programme objectives. In addition, there are six projects included, each of which also relates to the overall programme objectives.

Among the inter-departmental programmes are the following:

Moral Education Project. This project is intended to develop (1) a theory of moral development readily understandable by teachers; (2) carefully formulated, effective programmes and methods for stimulating moral development; (3) descriptions of relevant materials from a variety of sources; and (4) more objective, yet readily usable methods of assessing changes in moral reasoning and moral development. These outcomes will have the effect of increasing the adequacy of the approaches and methods used in moral education in the schools, and hopefully, the larger community.

Canadian Public Issues Project. This project involves the development, evaluation and dissemination of a social studies programme organized around areas of contemporary public issues in Canadian society. In addition, the project focuses on developing methods for training teachers to use these materials in the classroom - e.g. the development of a Teacher's Manual. Such a programme is expected to effect changes in social studies by providing an alternative to currently used history and social science courses, and also to develop students' abilities to discuss and cope with many of the value-issues prevalent in Canadian society.

Bilingual Education Project. This project responds directly to the urgent need of numerous boards of education for assistance in initiating experiments in bilingual education for English-speaking pupils at the kindergarten and Grade 1 levels. Project staff will co-operate with boards which are developing bilingual programmes and will co-ordinate the design and planning of experiments, materials, selection and development, teacher training, evaluation, and documentation.

The following abstracts are included to help round out the picture and to illustrate some of the major projects within single departments:

The Individualization Project. This programme consists of four sub-projects: a computer-based modular instructional system for secondary school physics curriculum materials; a computer-based systematic approach to diagnosis and instruction for mathematics skills; a language learning feasibility study (phases I and II) using an automated language laboratory; and an educational computer facilities project.

The School Board Administration Project. This project is designed to promote improvement of school board operation in Ontario and Canada. The project will develop and disseminate ideas about school board operation for the use of trustees and administrators in defining their roles, bringing their organizational arrangements into line with changing needs, and understanding the implications of current administrative concepts and modern technology for school administration. The development aspect of the project includes a study of Ontario school board organizational patterns, a study of current Ontario school board policies, a project to develop simulation materials for leadership training, and an organizational re-development project with a county school board.

The School System and the Exceptional Child. This project involves most of the faculty in the Department of Special Education and is being conducted in Welland County. It is designed to determine the best organizational arrangements for the teaching of various types of children perceived by the school as educationally "backward". The investigation focuses on how child, family, teacher, and school characteristics interact with special education classes to affect the child's school achievement, social and personal adjustment, and vocational adjustment. This will show an ultimate specification of conditioning under which different special education programmes are effective. There are three sub-projects in this programme.

The projects of the Institute conform to no single pattern. Some are primarily research; others a combination of research and development; still others involve primarily the collection and/or production of materials; many, but not all, involve schools and/or other external agencies.

All of the examples cited were taken either from programmes designated as "major thrust" or "departmental and inter-departmental". There are other studies of at least equal power which are being conducted by individuals and groups, sometimes within a department and sometimes involving two or more departments. Some of them are little more than clusters of projects, related through methodology or otherwise, which were separately initiated. In some cases, one or more of the so-called sub-projects may hold the major potential of a large cluster.

FIELD DEVELOPMENT

The work of the Office of Field Development has been characterized by the Co-ordinator as essentially "a bridge or linking activity, a co-ordination of effort among school people and OISE staff." A major portion of this linking activity is carried on through the regional centres. Examples from the work of the three centres which were established in 1969 will give some indication of the scope and variety of activities. The activities reported are for the most part abstracted from the Annual Report of the Office of Field Development for 1969-70.

The Niagara Centre's activities include:

1) dissemination of Institute products, primarily the Bereiter-Regan Conceptual Skills Programme;
2) participation in field-initiated studies, represented by co-operation in the inquiry Training Project initiated in Welland County;
3) centre-initiated projects including a study of the use of volunteers and another dealing with the improvement of written expression;

4) consultation on a variety of matters with groups of teachers, principals, with county consultants on design and evaluation of procedures, and on committees of the Department of Education's Regional Office.

The Trent Valley Centre's first action was to support POISE, a programme initiated by Peterborough County and involving innovations in curriculum and instruction. The Centre has undertaken to evaluate these innovations as they are being developed in five schools and has assigned a full-time evaluation specialist to this task. The Trent Valley Centre is also engaged in diffusion through "Study Group Schools", through seminars on evaluation, and through dissemination of OISE materials.

The Western Ontario Centre has conducted projects in science, mathematics, early school environments, and oral French. These projects involve educators from the region and members of the Institute staff. This Centre has also arranged for thirteen studies in the region on a wide range of topics, including students' attitudes and motivations, innovation in classroom organization and methods, and counselling procedures and practices. Through the Centre arrangements are made for workshops and other study groups in which members of many Institute departments are involved.

The study team which reviewed the R and D activities of the Office of Development expressed the conviction that "the principal contribution of the centres lies not in the content of the projects existing within each but rather in the encouragement given to innovation in education on the basis of evidence from research". It identified differences in the diffusion models among the centres and the major emphases within each diffusion model in the following terms:

Western Ontario: concerned with the transfer of leadership to people within the community; working directly through formal channels and by choosing to act as a connecting element to facilitate an administrative change process.

Trent Valley: concerned with critical input regarding needs and objectives from the field for interaction with OISE expertise; operative mainly through informal channels - principals and teachers.

Niagara: concerned with negotiation through both formal system of interaction and informal relationships to establish identity as change agent through the facilitation of curriculum innovation.

The Central Staff of the Office of Field Development, in addition to developing and co-ordinating the regional centres, performs many services in the field and cultivates close working relationships with educational officials and groups. Continuing discussions are held with the Deputy Minister and other officers of the Department of Education in an effort to foster co-operation. Close working relationships are maintained with the Ontario Association of Educational Officials and with the executive of the Ontario Teachers' Federation and a number of OTF affiliates. Meetings were initiated in 1969-70 with members of the Canadian Textbook Publishers Institute and an ad hoc committee was formed to offer positive proposals which were accepted by OISE's Editorial Board.

During the 1969-70 academic year the Office of Field Development carried out several large-scale projects requested by province-wide organizations. One was a survey of the opinions of Ontario teachers on the recommendations of the Hall Dennis report, Living and Learning. It was conducted at the request of the Ontario Teachers' Federation and designed to provide a fair sampling of teacher opinion according to geographical area, size and type of school, and other variables. More than six thousand questionnaires were returned and analyzed. Another large project was a background and opinions survey undertaken at the request of, and in co-operation with the Ontario Public School Men Teachers' Federation. Nearly 7,000 returned questionnaires were analyzed to reveal salient characteristics and attitudes. The Office of Development is continuing, also, a longitudinal study initiated in 1968 of student-teachers and graduates of two teacher training colleges.

The Co-ordinator and other staff members of Field Development play parts in nearly every aspect of Institute activity, including instruction, research, and development, but with a special responsibility for field relations,dissemination and assistance in implementing research and innovative ideas. One further example of the Office's activities was a major conference on teacher education which was attended by 360 delegates.

DISSEMINATION

The dissemination activities of the Institute appear to be well balanced in content and with respect to target audiences. Media include publications of many kinds, conferences, workshops, public addresses, films and tapes. It is difficult to assess the effects of these approaches to dissemination but, because there is reason to doubt that dissemination alone produces much change in educational practice, the Institute supplements dissemination by other means of encouraging educational innovation, such as the activities in Field Development previously described.

Publications

The 1971 publications catalogue lists an impressive array of publications under twelve categories. The publications afford considerable insight into the activities of the Institute and offer some basis for judging the impact on the field of education. A few illustrations will serve to show the scope of the Institute's work:

There are more than twenty publications on curriculum, including *The Uses of Film in the Teaching of English*, *Rhetoric - a Unified Approach to English Curriculum*, *The New Approach to Music*, *Values and Curriculum*, *K-13 Mathematics: Some Non-Geometric Aspects*, *Perspectives on Second Language Teaching*, *What Culture? What Heritage*?; and *Focus on Canadian Studies*. Psychological studies include *On Intelligence*, a conspectus of modern psychological opinion of the nature of intelligence,its assessment, and its relation to heredity and environment; *Matching Models in Education*, to co-ordinate student characteristics with educational environments; and *Psychology and Early Childhood Education*. An example from the field of adult education is *Learning Without a Teacher*, a study of deliberate efforts by forty individual learners to teach themselves some specific knowledge or skill.

Among the publications on administration are an annotated bibliography on city school district reorganization; a monograph, *The Chairman of the Board*, which is an examination of the School Board Chairman's role; and *Developing School Systems*, a 177-page guide for trustees, administrators, and teachers which offers a model for decision making and organizational design. Educational innovation is described in several publications including *Schools in Change*, which documents changes from 1965 to 1969, and *The School in Transition*, which is a profile of a secondary school undergoing innovation.

Educational planning is represented by an econometric analysis of Ontario entitled *Towards a Rational Educational Policy: A Mathematical Model for an Educational System*, offered as an aid in assessing the effects of various policies and forecasting transition flows in the educational system; and Demography and Educational Planning. Other publications provide projections of enrolments in Ontario for pre-school and elementary, secondary schools, and universities and colleges respectively.

Media materials include sets of tapes such as readings by Canadian poets and public lectures on education alternatives; multimedia kits on conceptual skills, and developing language; the Indian Studies Resource File; and *Ten Years in a Box*, which offers records, film strips, colour slides and audiotape, an assortment of posters, newspaper pages, pamphlets, postcards, etc. covering the period of the 1930s. The catalogue lists a number of tests and related publications, including *A Resource Book for Teachers on Evaluation in Geography*, and a *Grade 7 and 8 Mathemetics Test Item Pool* of 273 multiple choice questions and a teacher's guide.

Journals published by the Ontario Institute for Studies in Education include *Convergence*, an international journal of adult education published quarterly; *Interchange*, a multidisciplinary journal of research in education published quarterly; and *Orbit*, a journal for elementary and secondary school teachers that discusses and evaluates new approaches to learning. In addition there are a number of informal publications such as the *Curriculum Theory Network*, which is an informal information exchange about current work and new ideas in curriculum development, *Evaluation and Measurement Newsletter*, and selected research abstracts on adult education through University Extension.

The character of *Orbit* may be judged by a sampling from two issues. In June 1970 there was emphasis on "The Value of On-Site Learning" with "Dialogue from a Field Trip", "A Guide to the Educational, Cultural and Recreational Resources of South-eastern Georgia Bay", "The Community as an Aid to Teaching", "*La 13e Année dans la Capitol 2le*", "Out-of-School Learning and Beginning Teachers", and "Ontario Science Centre". In February 1971 articles included "The Perceptually Handicapped Child", "French-Language Teaching Modules", "Some Notes on the Open Plan School", "*Vers un enseignement plus intègre*", "Reading Efficiently and Thinking Critically", and "The School Child as Go-between".

The publications are designed to inform Ontario teachers, administrators, trustees and others of current developments in education.

Most publications are designed with particular audiences in mind. This is true not only of the monographs and other brochures, but of the journals, one of which is directed to Ontario teachers and other school people, another focused on adult education, and a third beamed at an international audience of scholars in the field of education. Publications of the Institute are promoted through an annual catalogue and by sending well designed handouts to selected audiences.

Conferences

In a typical year the Institute sponsors more than twenty conferences, seminars and workshops. The range of topics and audiences reached may be judged by the following examples:

Colloquium of Client-Centred Counselling in Secondary Schools, attended by 250 Ontario Guidance counsellors, 19-20 October 1967;

Series of 5 workshops on the theme, Supervision in Leadership, attended by 35 school administrators at each workshop, October 1967;

Conference on Problems in the Teaching of Young Children, attended by 230 kindergarten and elementary teachers, 12-13 March 1967;

International Conference on the World of Educational Research, attended by 100 delegates, 23-24 August 1968;

Reading Conference for reading consultants and elementary school teachers, attended by 100, 29 November 1968;

Conference on the Practical Implication of Living and Learning, attended by 360 school trustees, administrators, teachers and students, 17-19 April 1969;

A Conference on "The Chairman of the Board", attended by 160 school trustees and senior educational officials, 16-18 June 1969.

Other topics for conferences or workshops between 1967 and 1969 include:

The Historian and the Cultural Context of Education
The Elementary School Principal
Research in the Schools
Moral Education

Teacher as Group Leader
Community Development
Canadian Studies
Non-Metric Data Analysis
Intelligence (Seminar)
Implications of Demographic Factors for Educational Planning and Research
Philosophy in Education
Leadership and Change in Education

Many of the conferences and other meetings were sponsored by departments of OISE in collaboration with other agencies such as the Canadian Council for Research in Education, and the Ontario Association of Education Officials. Also sponsoring were the York Borough Board of Education (featured in another Case Study in this series), and the Christian Education Board of the United Anglican Churches. The conferences and workshops were supplemented by numerous addresses by faculty members before professional organizations of many kinds as well as in colleges and universities.

Professional Development Days

Another dissemination activity undertaken by the Conference Office is the organization of Professional Development Days. Teachers from the various counties have a day off each year for professional development. Frequently, they write or phone the Conference Office and ask for a programme to be arranged for them. Requests generally fall into two categories according to whether the teachers are interested in visiting OISE and getting an overview of the work of the Institute or whether they have particular problems for which they are seeking help. Eighteen professional development programmes were conducted in 1970-71. Topics of talks and seminars included: the role of research in education, the meaning of curriculum, non-graded schools, individualization, special education, the Conceptual Skills Programme; multi-media kits, Indian Studies, Canadian Studies, reading, remedial reading, and various aspects of language learning.

The Institute library is an important resource for Ontario educators as well as Institute staff. The number of items has increased to approximately 175,000 including many films, audiotapes and a variety of curriculum materials. Special effort is made to bring innovative materials and multi-media kits to the attention of teachers and other potential users; and some materials are made available for workshops operated by the field centres. The Library also supplies bibliographies on various subjects to school systems in the regions served by the centres. The services of the Institute library supplement the rich resources of the University of Toronto library which are fully available to Institute staff and students.

Other service activities are: (1) a variety of aids from the Modern Language Centre are loaned to individuals and organizations concerned with second language teaching; (2) assistance is provided by the Department of Measurement and Evaluation in response to requests from external groups; and (3) extensive service work is carried on by the Department of Adult Education for the Colleges of Applied Arts and Technology.

Chapter V

ADDITIONAL IMPRESSIONS, CONCLUSIONS AND INFERENCES

The first two chapters of this report presented an overview of salient features of the Ontario Institute for Studies in Education as it appears today and revealed something of its origin, background, and purposes. Chapters III and IV filled in some details of organization, management, and activities. At various points comments were made on problems encountered and progress made. In this final chapter, an attempt will be made to focus on how successful the Institute has been in achieving its purposes, what characteristics seem to help or hinder effectiveness, and what other generalizations can be made regarding its nature, its performance, and its prospects for future contributions to the improvement of education. The next section will offer comments drawn from interviews and other sources. This will be followed by some interpretive comments by the author. Finally, some conclusions regarding the performance and potential of the Institute will be offered.

VIEWS PRO AND CON

Some views of the Institute from the perspective of the Legislature of Ontario were expressed on 6 November 1969 before the Education and University Affairs Standing Committee. The Honourable William G. Davis, in an opening statement, expressed his opinion that: "The great problem in all fields of education today ... is to bring the areas of research and development to the level of the operating school system". He thus placed in a broader setting the difficulties encountered by the Institute. The more critical comments offered by members of the Committee (coming usually from members of opposition parties) tended to centre on two points:

1. Failure to concentrate research and development on important educational problems in the Province. There was repeated reference to the dispersion of resources represented by having more than 300 research projects. For example, Mr. W. G. Pitman (Peterborough)

observed: "I think the main criticism I've heard is that OISE does not quite get around to putting enough emphasis on the main problems and also the development area, that is relating the research to development, and that it tends to be tied up with the academic world and its obsession with publishing and perishing."

Another Member (Mr. Lewis of Scarborough West) bolstered these comments by quoting extensively from the report of the Academic Council's Committee on Future Growth and Development, beginning with the following statement: "The central thesis of this committee is that OISE has failed, in terms of the resources available to it, to initiate programmes that will have a demonstrated immediate effect on educational practice, or to set the pattern for rigorous, demanding and creative scholarly practice which might be expected to have a long-range effect on educational practice."

2. Staff weaknesses, including undue American influence, ignorance of Ontario education, and excessive concern with academic careers. The following comments illustrate the point: "So you have educational administration and applied psychology and curriculum where the imbalance - and in one instance it leads to preponderance - reflects American scholars."

"That seemed to be the ultimate irony - a Canadian studies project to improve the study of Canadian history in Ontario schools is being run by an American."

"OISE is staffed in large measure by people who do not know much about Ontario education and do not know that they do not know, and do not care. (Note: The last statement was attributed to a paper submitted by an Institute scholar to the Academic Council and presented a summary of criticisms heard.)"

The points referred to and other criticisms were responded to by the Minister of Education and by Dr. Jackson and other Institute officers who had been invited to attend the hearing. The first point was acknowledged as a weakness which the Institute recognized and was working on; the second was answered in part by information showing a preponderance of Canadians and increasing attention to the needs of Ontario. In a statement made to the Committee on Human Resources, Ontario Legislature, 21 April 1971, Dr. Jackson took further note of criticisms of the Institute which he heads. Some of his remarks are quoted here:

"Failures have, in fact, been more fancied than real. Given the very existence of the Institute, some persons expected it to come up overnight with solutions to problems others have been wrestling with unsuccessfully for years, with far more combined resources ... The Institute has become part and parcel of the front line troops in educational change in Ontario. One of our projects alone has materials located (and used) in 1,000 classrooms; another project will probably involve every school and classroom at three grade levels in Ontario ... During this year ... we have studies in progress in 124 schools and some 400 classrooms, and in every region of the province save one ... There are projects in every part of the province, from the extreme North to the border on the South, and from Manitoba on the West to Quebec on the East ...

"The Institute has also been held up as a "horrible example" of the danger of Americanization of our schools, in terms of the number of Americans on our academic staff ... This year only 33 per cent of our staff are American citizens; many have landed immigrant status and plan to become Canadian citizens as soon as the residence requirement has been satisfied ... More Canadians with appropriate qualifications are becoming available. Many of them are Institute graduates, the demand for whom seems insatiable. ...

"... With the assistance of the new building, it has become a centre for education in this province ... educators at all levels in Ontario have available a resource and information centre of unsurpassed extent ... Over and above the use of the physical facilities are the immeasurably more important and significant services provided to educators (from classroom teachers, including those in professional schools at universities and at the CAATs, to school officials and trustees) by the central staff and the staffs of the field centres, including the extensive reference and information section of the OISE library ... A few examples of these activities illustrate the point:

1,650 graduates in five years, of whom about 90 per cent have returned to the Ontario school system,

over 100 publications by OISE in five years (reports, texts, brochures, etc.)

in 1969/70 the staff published 220 articles in professional journals and wrote parts or the whole of 111 books, nearly 10,000 subscribers to Institute journals (*Orbit*, *Interchange*, *Convergence*),

in 1969/70 over 280 addresses to professional groups,

over 150 conferences during the past five years,

in 1969/70 alone over 200 workshops for educators

an estimated 10,000 consultations last year (office, telephone, letter),

469 group consultations during last year,

information from the Library to an estimated 12,000 people in Ontario each year."

Opinions were obtained through extensive interviews with members of the Institute's staff and key informants outside the Institute about the Institute's achievements and shortcomings, strengths and weaknesses, its use of resources, its potential contributions, its probable future, and the changes most needed to increase its effectiveness.

The range of opinions expressed was very wide, but there was substantial agreement on the following points:

1. *The Institute has been successful in recruiting a staff of high quality*. One who made this point more explicitly than most said unequivocally that the Institute's chief strength is its highly qualified staff which includes a good mix of well-established scholars, those just building their scholarly reputations, and those who are still young but have potential. In one way or another this sentiment was echoed by most of those interviewed, although some criticized the Institute for recruiting too many people from outside Ontario "who do not understand education in the Province" or too many "ivory tower" people who do not understand the problems of the schools, or too many Americans. Some, particularly among research officers and students, think there are many "second-rate" faculty members.

2. *The programme of graduate studies offered in the ten departments compares favourably in quality and range with the offerings in major universities in North America and the United Kingdom*. One member of the faculty, after noting that the Institute has a good graduate school of education which will stand scrutiny with most of the good ones in the United States, added that "the price we have

paid for creating a very good college of education is that we have to operate in the manner of a college of education, and you can't operate a government financed institute for the purpose of planning and policy research in the same mode as a college of education." Others find the programme not very innovative and call the instruction pedestrian. In general, however, there was little criticism of the programme of graduate studies, and that was usually directed towards particular courses or a particular department rather than to the programme as a whole.

3. The Institute has not yet made much progress in the staffing and management of large-scale research and development programmes focused on major issues and problems in Ontario education. Many complain of the dissipation of resources on numerous small research projects which are not likely to provide new knowledge or other products that can be used in the schools. One informant, however, made an impassioned defence of what he called the academic model of individual autonomy and deplored the recent attempt to adopt an "industrial model". Some praised the 1970-71 review of research and development as a long step toward concentration of resources on important problems.

4. Much time and energy have been spent in committees and conferences focused on internal structure and decision-making rather than on important educational issues. This point was made by several informants, sometimes with particular reference to the R and D review. One department chairman, for example, referred to it as a "decision-making monster" bred in a climate of participatory democracy. Another informant, however, called the review "one of the best things that has happened" because it involved all in the process of reviewing projects and setting directions. Others deplored the excessive time spent in committees and meetings generally, and a few mentioned the enormous effort invested in attempts to change organization and government.

5. The Institute has not given enough attention to establishing strong collaborative relationships with the Department of Education, professional associations, and school personnel generally. One respondent remarked that 90 per cent of the teachers would say the Institute has done nothing for them, and "it would be hard to refute". He added that those who did feel that the Institute had done something would talk about publications, in-service courses, workshops,

or kits. Several staff members and a majority of those from outside the Institute praised the Office of Field Development for steps to improve relations with school people, and there was strong praise for the work of the regional centres established by the Institute.

As was remarked earlier, all of the total of more than 50 persons in Ontario from whom opinions were obtained, through formal interviews or otherwise, mingle criticism of Institute performance in certain respects with recognition of important strengths. Self-criticism by Institute officers and staff has been a source of stress and a propellant of change as is evident in recent decisions regarding organization, activities and funding.

INTERPRETIVE COMMENTS

The Institute represents an attempt to supplement the operations of existing educational institutions with an essentially new type of institution in order to meet needs with which traditional organizations appear unable to cope. The creation of a new institution always involves risks, particularly when the definition of objectives and modes of operation is so vague as to raise inflated expectations and to pose threats to existing institutions and practices. On the other hand, the freedom offered by loose definition opens up possibilities which, through good planning and management, may enable the new organization to make a distinctive place for itself. This combination of risk and opportunity makes the Institute an exciting arena where roles and functions are worked out on the scene of action in full view of a critical audience. Conflict arises from differences in perceptions, values, and preferred strategies among both participants and spectators.

Such an institution in essence has to find itself by achieving a distinctive identity through a combination of action, deliberation, and planning. Meanwhile, decision-making tends to be diffused and uncertain and the organization, if large, may at times seem ungovernable and unmanageable. The Institute has exhibited these characteristics to the extent that it is hard to describe it as an entity; yet the commitment to its basic purpose is so strong that movement continues towards realizing the vision which evoked it; and the basic structure and governing mechanisms have proved flexible enough to accommodate stress and creative enough to generate new policies and procedures.

Educational change agencies are set up for different purposes, conceive their functions in different ways, and engage in diverse activities which are assumed to contribute to desirable changes in education. If change agencies are to revitalize education, it is important that their efforts should be directed to establishing conditions for vigorous and effective functioning of the institutions and agencies of education and not merely to the achievement of short-range goals. The pressure for immediate assistance in solving problems being encountered by schools and other operating agencies is difficult to resist; and this pressure from education personnel is reinforced by demands from parents and other citizens who believe the experiences now being provided by schools are inappropriate or inadequate to the demands of contemporary society. Pressure comes also from government officers and members of the legislature who feel responsible both for the advancement of public welfare and prudential use of tax revenues.

The Act of establishment for the Ontario Institute for Studies in Education, the concepts of its founders, the aspirations of its faculties, and the expectations held by educators and citizens alike place upon the Institute obligations for conducting a wide array of activities which encompass the functions of graduate training, research, development, dissemination, and implementation. No other educational change agency has so wide a range of functions. To carry them out fully even within the confines of the Province of Ontario would require resources many times as large as those now available to the Institute and would involve danger of infringement on the activities of the Ontario Department of Education, the several boards of county and city districts, and other educational agencies which were functioning before the Institute was established. If the Institute is to increase the effectiveness of schools and other educational agencies, it must to some extent have different functions from the Department of Education and other existing agencies and seek to concentrate on those functions for which it has some comparative advantage. It is doubtful, for example, whether the Institute can go far with the installation of innovative products and the implementation of new knowledge unless the Department of Education assumes a major share of the responsibility.

There is some reason to believe that the functions of graduate training in time may be shared with other universities and colleges of education. Officials of the Ontario Department of Education have shown interest in assuming major responsibility for the review and implementation of products developed by the Institute. The sharing of functions of training and implementation with other agencies might enable the Institute to concentrate a major part of its resources on the processes and activities which are essential to effective research and development. In that case, greater attention would need to be given to educational planning and the working out of cycles of need assessment, specification of objectives, and analysis of alternative strategies and treatments. The analyzed data would make possible wiser choices among alternatives and the construction of partial or tentative solutions to be tested in clinical and school situations to the point where the products are ready for further evaluation and distribution through the Department of Education or other appropriate agency. The Institute would thus be enabled to give greater attention to materials, media, and environments for learning, and to offer assistance in the development of appropriate behaviour for teachers and other school personnel, parents and community volunteers. The Institute undoubtedly will want to take a full share of responsibility for building the necessary links with other organizations and institutions.

Criticism of the Institute has been sharp and unremitting from its first year onward. Some of the criticism from outside may be traceable in part to disappointment that the resources allocated to the Institute were not given instead to one or more already established agencies; some doubtless are rooted in scepticism that any institution can perform effectively the multiple functions assigned to the Institute; and others arise from the failure of the Institute to realize quickly the high expectations held for its impact on educational practice. Interviews with key informants in such agencies as the Ontario Department of Education and the Ontario Teachers' Federation reveal strong sentiments of support for the Institute, mingled with opinions that the Institute has not yet discovered how to relate itself fruitfully to the problems of educational practitioners or to establish mutually useful relations with other organizations seeking to improve education.

The sharpest criticisms encountered, in numerous conversations and over 20 extended interviews with Institute staff and representatives of external agencies, were expressed by Institute officers and faculty members. These criticisms range all the way from lack of positive integrating leadership and the alleged excesses of participatory democracy to poor research design and project fragmentation. Several of the more cogent criticisms centre on inadequate provisions for long-range planning of Institute goals and objectives and failure to bring together the necessary concentration of inter-disciplinary abilities and technical knowledge to conduct systematic large-scale research and development operations.

In the past few years, I have observed more than 30 of the agencies which have been created mostly in the US, but also in Asia, the UK and Europe, to reconstruct institutions and/or to reform practices in education.

Special attention has been given to those organizations which use what may be called loosely a research and development approach to the improvement of education. Of all the organizations which have thus come under my scrutiny, the Ontario Institute for Studies in Education is in certain respects the most diverse, the most interesting, the most elusive, and the most promising. These superlatives are applied because the Institute encompasses practically the entire gamut of approaches to educational reform, encounters almost every obstacle along that boulder-strewn path, and in itself presents a microcosm of all that is involved in making education relevant to post-modern societies and the needs of mankind.

The Institute is still trying to achieve a dynamic balance of its diverse functions of graduate training, research, development, dissemination, and implementation. At the same time it is working to reconcile the values held by the several communities or groups which identify primarily with one or other of the related sets of activities. Each year of its brief history is marked both by accomplishments in which pride is taken and by continuing efforts, through reorganization and reorientation, to counter criticisms arising from the failure to perform as expected in one or more respects.

SUMMARY OF CONCLUSIONS

I. THE INSTITUTE HAS A SUBSTANTIAL RECORD OF ACCOMPLISHMENT IN PURSUIT OF THE OBJECTIVES WITH WHICH IT WAS CHARGED BY THE ENABLING LEGISLATION

Two specific objects are set forth in the enabling Act. Of these, it is indisputable that the Institute has moved diligently "to establish and conduct courses leading to certificates of standing and graduate degrees in education." It likewise has proceeded "to study matters and problems relating to or affecting education, and to disseminate the results of and assist in implementation of the findings of educational studies." A brief review of the contributions of the Institute to the achievement of these objects is given below:

1. Specialized programmes of graduate study in education have been greatly expanded. Before the founding of the Institute, Ontario was preparing very few specialists in the field of education, and opportunities for such specialization at graduate level were limited. Under sponsorship of the Institute, a wide range of courses are now offered in ten departments, permitting specialization in the relatively new fields of computer applications, applied linguistics, and educational planning; in the areas of adult, higher, and special education; in the disciplines of history, philosophy, psychology, and sociology of education; and for career preparation in educational administration, counselling and guidance, measurement and evaluation, and school psychology. Enrolments in graduate courses in education have risen dramatically, and the number of degrees awarded has risen correspondingly, as shown by figures presented in Chapter IV.

2. The amount and quality of research in education compares favourably with other North American, United Kingdom, and European departments, colleges, and schools of education of similar size, including many with a much longer history. The foregoing statement admittedly is not a finding based on careful analysis or a comprehensive survey, but is merely an opinion formed after examining the abstracts prepared by Institute staff and by personal knowledge of some of their work, in the context of a moderate knowledge of the state of educational research in general.

3. Some progress has been made in the development of curricula, instructional systems, and other products designed to increase educational effectiveness. While there has been as yet little in the nature of large-scale research and development activities, there are a number of programmes which promise to provide products likely to help the achievement of educational objectives. Several examples may be found in Chapter IV under the heading of 'Research and Development'. There is reason to believe that the reorganization of the Institute and the new review and budgeting processes will bring about a marked increase in large-scale and carefully

designed programmes for development of materials, technologies, and other elements of new instructional systems and other educational products.

4. Dissemination of research findings and other ideas for improvement of education has been promoted through publications, conferences, and other forms of communication and education. The Institute publishes a number of periodicals and brochures designed to inform Ontario teachers, administrators, trustees, and others of current developments in education. Most publications are designed with particular audiences in mind. The publications programme is supplemented by multi-media kits and a wide variety of conferences, seminars, and workshops. These in-service education ventures are directed to such diverse audiences as kindergarten and elementary teachers, school administrators, elementary school principals, guidance counsellors and school trustees. Many of the conferences and workshops are jointly sponsored by other agencies such as the Ontario School Trustees' Council, the Ontario Department of Education, the Ontario Association of Education Officials, and boards of education. The dissemination activities are well-balanced in content and with respect to target audiences.

5. Implementation of new knowledge, technologies, and other approaches to educational improvement are being fostered by involvement with school boards, consultant services, and through the work of the regional centres. Of particular importance in implementation are the regional centres, three of which have been in operation for over a year. Two other centres were authorized within the past year; and a total of 10 are contemplated in order to bring the resources of the Institute within reach of every school in the Province.One function of the centre is to build "an effective bridge" between the schools and Institute staff by recognizing that schools are identifying important problems on which the resources of the Institute can be brought to bear. Another function of the centres is the dissemination and implementation of instructional materials and other products of the Institute. The decision to make the area served by each centre co-terminous with the jurisdiction of the regional offices of the Department of Education makes possible close

co-operation with Department officials and is leading toward a progressive differentiation of roles.

II. MANY BARRIERS TO TRULY EFFECTIVE OPERATION ARE YET TO BE OVERCOME

Some of these barriers are inherent in the nature of schools and other educational institutions which everywhere tend to reflect the needs of society as they were defined in the early decades of the present century or even earlier. Other barriers which obstruct the best laid plans of education change agencies in all countries include the serious gulf that has opened over the years between educational practitioners and researchers, the meagre body of validated knowledge available to educational reformers, the lack of experience with systematic research and development, and the shortage of trained managers and specialists. Other obstacles to effective operation may be traced to the Institute's origin, its recruiting policies, and other internal and external factors. Some of the persisting problems are:

1. The conflicting values and perceptions within the Institute retard communication and make collaboration difficult. This barrier is falling, but it will remain an impediment until adequate criteria and procedures are developed for recognizing and rewarding outstanding contributions to development and diffusion as well as to the discovery of knowledge.

2. The departmental organization does not lend itself readily to programmatic and inter-disciplinary research and development. Studies still tend to be discipline-oriented rather than problem- or product-oriented. This is characteristic of academic communities everywhere and is a barrier which is giving way slowly as members of the Institute strive to reconcile the prized autonomy of an academic community with concepts of accountability to the supporting society. The departmental organization lends itself less well to research and development than to the administration of graduate studies. The present organization of the Office of Co-ordinator of R and D and the new budget processes which have been introduced provide impetus for the planning and management of large-scale development activities. There still remains the problem of reconciling the claims of the competing

demands of large programmes with the normal demands of departments. The conflict might be reduced by reducing the number of departments through mergers or through organizing some of the existing departments as centres to provide technical and other services for graduate studies and research and development. Another possibility would be to transform the departments gradually into inter-disciplinary degree-granting committees within the Department of Educational Theory. If carefully planned, this might reduce departmental demands on faculty members and at the same time provide flexible units to help students plan individualized programmes suited to their backgrounds and career interests.

3. There is no planning unit to serve the Institute as a whole. Although numerous data are gathered and analysed by individuals and departments, there is no agency which is charged with responsibility for assembling and analyzing (in a form appropriate to Institute-wide decisions) data relevant to the needs of education in Ontario or the resources available for meeting the needs. The posing of alternative strategies and the analysis of the probable benefits and costs attached to viable alternatives become matters of conjecture and debate rather than of objective study. This may be the most serious defect in the organization.

   On the assumption that the new Institute Assembly (or Council) will become the forum in which major policy decisions are deliberated, it seems essential to establish a small central planning unit to increase the probability of informed discussion leading to well-considered decisions. The functions of such a planning unit would include (1) continuing assessments of the emerging needs for education in Ontario, and the extent to which institutional capability for meeting the needs is present or might be developed; (2) analysis of gaps between the goals and the performance of educational institutions; (3) identification and analysis of alternative strategies and programmes through which the Institute might make distinctive contributions to educational improvement. If these functions are performed adequately, the Institute Assembly would be able to focus its deliberations on broad issues of public policy with much better understanding of the alternatives available and the costs associated with selected means of giving effect to policy.

Ideally, the head of the planning group would be someone with the capability, the time, and the desire to direct a small staff of data gatherers and analysts. Much of the work of the planning unit would consist of analyzing and organizing information developed elsewhere in the Institute and externally; but supplemental studies doubtless would need to be conducted from time to time. The planning unit would respond to requests from the Director, the Assembly, and from the Standing Committees on Research and Development, Field Development, Graduate Studies, and the Budget.

Planning, if conceived as a continuing process of gathering and analyzing information relative to decisions contributes to, rather than detracting from, full consideration of humanistic and political factors which do not lend themselves readily to precise analysis. Improved provisions for information processing and planning would help the Institute to clarify its objectives, identify the functions it wishes to perform, and move quickly toward an integrated set of operations.

4. Closely related to deficiences in Institute planning are failures to make full use of the resources of the Institute. Although there is a Department of Educational Planning, it is not involved in planning of Institute activities. Although there are many specialists in measurement and evaluation, a common criticism of Institute projects is that there is inadequate provision for evaluation of the effects of its products. The specification of objectives for many products, and for the Institute as a whole, leaves much to be desired, although the Institute staff includes many behavioural scientists. Data processing capabilities are not fully utilized to inform decision-making in the Institute. Further thought also needs to be given to the selection and use of resource associates and assistants. Through recruitment and assignment of personnel a continuing effort must be made to match project and programme requirements, with the aspirations and developmental needs of the persons employed.

5. Management is largely by committees. This is partly a consequence of the assertion of academic prerogatives and the later movement to broaden the base of decision-making to include all students and employees. It is partly a reaction on the part of administrators to the strong antipathy expressed to the exercise of authority - a reaction that took the form of reluctance to exercise overt leadership.

6. There is as yet no clear differentiation of functions and roles between the Institute and the Department of Education. The decentralization of the Department of Education and the movement away from inspection to consulting services occurred just as the Institute was starting its operations. These changes and the initial academic orientation of the Institute raised formidable barriers to effective co-operation. Differentiation of functions is advancing through the reciprocal efforts of Institute officers and officials of the Department; and relationships between the regional staff of the two institutions appear cordial. Much effort is still required on both sides to make the link sound and productive.

III. THE INSTITUTE EXHIBITS GREAT RESILIENCE IN CORRECTING EXCESSES AND REMEDYING DEFECTS

This characteristic is evident as one looks back on the six-year history of the Institute. Perhaps the best example may be found in a sequence of events centering around the Academic Council. That body in the first two years seemed preoccupied by concern with faculty prerogatives and with protecting faculty autonomy from any outside authority or administrative control. In the next two years the Council, having established itself as the chief policy-proposing body of the Institute, moved to broaden the base of participation by involving students and non-academic staff in decision-making. Then, in the fifth and sixth years, the Council moved clearly toward the acceptance of responsibility for giving public purposes and social needs priority over faculty proclivities.

The research and development review processes, the reorganization of the Institute, and new demands for leadership coupled with uninhibited discussion - all may be taken as indications that the Institute is maturing and learning how to govern itself responsibly.

What is happening in Ontario may hold lessons for educators everywhere by pointing to new ways of reconciling academic freedom with public accountability. The future of the Institute is still problematic; but the strengthening of present tendencies may well demonstrate that this particular model of educational change agency can develop power for educational improvement that is hard to achieve through less comprehensive agencies.

Appendixes

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Part Three

THE NATIONAL COUNCIL FOR INNOVATION IN EDUCATION (NCIE), NORWAY

by

Sixten MARKLUND
National Board of Education, Sweden, and

Eskil BJØRKLUND
Office of the Chancellor of the Universities, Sweden

May 1971

SUMMARY OF CASE STUDY OF NORWEGIAN NCIE

The Norwegian Council for Innovation in Education was formed in 1954 as a council under the Ministry of Church and Education - parallel with other councils covering various levels of education. It conducts experiments under a ministry responsible for making administrative decisions which are then laid before Parliament, which exercises final control, approves budgets and receives regular reports. The Council's role is thus subject to political change.

The most significant educational reform in Norway in the last 20 years has been the introduction of the nine-year school, in which the NCIE has played a big part. It is described in detail in the case study.

After the Second World War, a Co-ordinating Committee was set up to improve the old system of education rather than propose a new one. But between 1947 and 1952 it came round to the view that a reconstruction of the system involving a single nine-year school (compulsory education then covered seven years), divided into various streams but attended by all pupils was needed. One member of the Committee proposed the establishment of a council for innovation, a view expressed simultaneously by the secondary school teachers' association.

From the beginning, there was a two-fold objective: on the one hand to reform the existing school system, and on the other to set up a new one. And from the beginning the Council favoured the second objective, and set out to develop nine-year comprehensive schools. Later, the problems of streaming became a major source of controversy, with obvious political implications. In its early years the Council worked closely with the Ministry: Parliament was little involved as political debate on educational matters was relatively calm. The Council worked as an initiator with little or no scientific evaluation and follow-up work on its activities. Its organisation is flexible. Staffing is based as far as possible on temporary appointments and secondments of teachers, lecturers, inspectors and consultants.

The Council works in close contact with the other specialist advisory councils of the Ministry, and co-ordinating committees have been set up with each. NCIE is unhappy with the way its budget is calculated, and in particular the way in which no account is paid to increased costs due to salary increases outside the Council's control. This situation is about to improve, and the general budget of the Council has risen more rapidly in recent years.

The authors of this study suggest that the original plan for the Parliamentary control of NCIE's activities is not working: Parliament has seldom debated forward plans; budgeting is on a one-year, summary basis; and reports of the Council's activities do not reach Parliament quickly enough.

In moving on from the nine-year school reform to consider its role in secondary school reform, the NCIE feels that its responsibilities are ill-defined. It would like to take over the entire work of reform and give itself a ten-year timetable. Other bodies, for example the Council for Secondary Education, prefer a slower rate of change.

At the same time as wishing to carry out major reforms, the Council has expressed a wish, possibly contradictory, to make research and evaluation a major part of its work. Detailed work on internal reforms in such fields as teaching methods, work organisation, teaching aids and building design are carried out by NCIE project teams.

The research element of the Council's work, the authors suggest, should develop in such a way as to provide a relevant and continuous assessment of the more important major and minor NCIE projects. It should also collaborate with other research institutions. Information services should be improved to communicate the activities of the Council better and to a wider audience. In its early years, those of a Labour Government, the Council provided a useful tool for realising one of their targets - the democratisation of education. Later, under the following coalition government, Parliament became aware of the initiative that was being taken by the Council and the Ministry, and there was some criticism, based on the view that political questions of policy should be taken by Parliament.

The lack of any long-term educational policy poses a serious problem for the Council. The authors suggest that it might be better, too, to separate the two functions - active reform and research and evaluation: the NCIE would then become a department of development within the Ministry. Finally they make a number of recommendations as to how the NCIE might become an ideal institution concerned with innovation.

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INTRODUCTION

The institution we are describing is the National Council for Innovation in Education of the Norwegian Ministry of Church and Education (or in Norwegian: Forsøksrådet for Skoleverket i Norge), hereafter abbreviated to NCIE. We are principally interested in the importance of this body for educational renewal in Norway. To the extent that they prove successful, educational innovations are of general interest, and the relevance to other countries of NCIE's work will be treated as a subordinate question.

In the first place we must emphasise the close and direct co-operation existing between the NCIE and the Norwegian governmental and parliamentary authorities concerned with educational affairs. The Government of Norway has a number of advisory bodies founded by various Acts of Parliament. Thus the NCIE was formed in 1954 as a council under the Ministry of Church and Education (MCE). There are also councils for Primary Education, Secondary Education, Vocational Education, Teacher Training, Special Education and Adult Education, all of them being collateral in principle to the NCIE. (The Council for Primary Education changed its name on 1st July 1971 and is now known as the Council for Comprehensive Education.)

It is not possible to describe the organisation, tasks and functions of the NCIE without at the same time referring to the elements and functions of the MCE and Parliament that affect the NCIE. Both have, during the period under review, changed character in response to the political evolution of the country, and so the NCIE has also assumed a new and slightly different role as a result of governmental and parliamentary requirements.

This means that a description of the background to the NCIE must be wider than would be necessary in the case of a more or less independent body concerned with educational innovation. The forces that led to the setting up of the NCIE can be traced back to the Joint Programme for the Development of Norway at the end of the Second World War, a programme adopted by representatives of various political parties. The forces that have subsequently affected educational development as a whole have also influenced the NCIE, both its origin and its continued activities.

The objectives, strategies and activities of the NCIE are not easily described. An independent institute concerned with educational innovation enjoys considerable freedom in defining its objectives, strategies and activities. But the Norwegian NCIE is not an independent institute. It is responsible for considerably greater tasks than those of such an institute. The tasks entrusted to the NCIE by Act of Parliament apply to almost all types of schools in Norway as well as to the entire country. This all-embracing task of renewal makes the NCIE not only into an instrument for technical innovation but also into an instrument for educational policy in the widest sense.

Thus the objectives of the NCIE are ultimately a matter for politicians. Descriptions of aims may outwardly appear simple, but in fact they are extraordinarily complicated. Government and Parliament can, as is well known, continually change their political structure. This leads inevitably to changes in educational policy. For this reason alone it is not sufficient to describe the NCIE as it is today. Every measure must be examined in the light of previous events and points of view.

We therefore consider it desirable to give a comparatively detailed account of Norwegian school policy during the last two decades, the main emphasis being on the introduction and development of the nine-year school.

The same applies to what are termed strategies in innovation. Admittedly these can vary from case to case, even if the objective remains unchanged. In school policy, however, objectives are often unclear and expressed in general terms. In consequence it happens not infrequently that strategies are also decided on the political level.

Finally, the activities of the NCIE: in so far as these are expressed in projects and concrete investigations the autonomy of the Council is greater. This does not prevent political considerations from entering this sphere also to an extent which would be unthinkable in the case of an entirely independent institute.

This unmistakable connection with Norwegian educational politics has not, however, prevented the NCIE from adopting, by means of initiatives and public statements, an independent attitude to controversial questions. The tasks and functions of the council in these respects, among others, will be examined by us in somewhat greater detail.

The purpose of this report is, as has already been pointed out, to describe the NCIE as an institution for educational renewal. It is therefore important from the outset to make one thing clear: the institution as such is possibly less interesting than the Innovation in Education Act, the very foundation stone of the institution. The activities of the NCIE must be continually referred to this Act. And the Act has, as we shall see, its own background history.

From this it also follows that the possibilities of experiment and renewal provided by the Act could be obtained by means other than recourse to a council devoted to experiment. In terms of educational policy other ways exist of attaining the objectives, for example the distribution of development grants to other institutions on central, regional and local levels. As we shall very soon see, one question which is not clear is to what extent the other councils, collateral to the NCIE, can and should engage in experiment and so function as innovators in the same way.

The "mechanism" for educational change in the Norwegian school system is thus something more than an institution. It is primarily an Act of Parliament. And even if this mechanism normally finds concrete expression in whatever the NCIE does, we must bear in mind that this institution perpetually finds itself in a political environment with given social and economic components.

The NCIE cannot, therefore, be adequately described and understood unless it is seen as a part of a larger context in educational politics. It is not easy, within the scope proper to a report of this kind, to describe the development of educational politics in the post-war period and thereby the situation in Norway today. It is therefore necessary to limit our account with regard to both the period to be covered as well as to questions of innovation. The description given here will be essentially concerned with the years 1955-71, emphasis being laid on the most recent years. Of the educational problems discussed, we shall mainly deal with objectives, strategies and activities associated with the extension of compulsory school attendance from seven to nine years, streaming at secondary school level and the development of the syllabus. Only incidentally shall we take up questions of innovation in the narrower technical sense, for example the introduction of new methods and teaching aids in schools.

Part I

BACKGROUND

THE NORWEGIAN EDUCATIONAL SYSTEM AT THE END OF THE WAR

The NCIE was founded by an Act of the Norwegian Parliament in 1954, its task being to contribute to the reform and improvement of the Norwegian educational system. We shall therefore begin by giving a brief description of the organisation of the system.

The basis of the post-war school was to be found in four important Acts of Parliament. These were:

The 1936 Act for the primary school
The 1935 Act for the secondary school
The 1946 Act for the lower secondary school (Norw. framhaldsskolen)
The 1940 Act for vocational schools for crafts and industry.

In accordance with the primary school act, compulsory school attendance should be seven years for the entire country. The geographical and demographical structure of Norway made it impossible for the time being for the whole country to adopt a uniform school system. Special regulations were drawn up for the school system of the towns which was already comparatively highly developed. Similarly the rural areas acquired their own school legislation, permitting much greater variations in syllabuses and timetables.

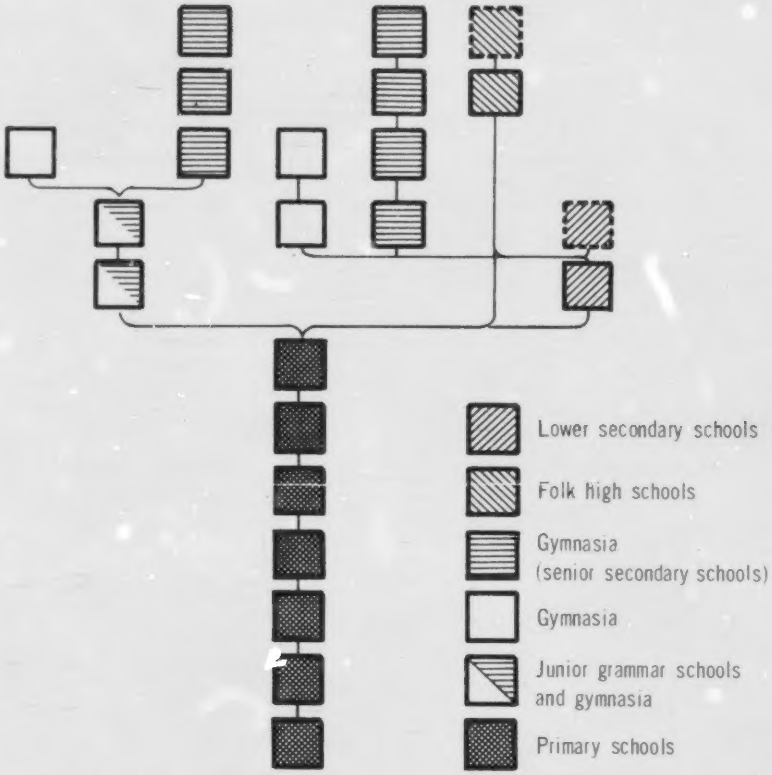
Although the seven-year primary school did not therefore receive a uniform organisation, of equal value to all localities, it was nevertheless uniform in one respect: there was no organisational differentiation during the seven years spent in the primary school in the sense of preparation for subsequent education. In other words, Norway possessed a 7-year undifferentiated and unified comprehensive school. At the end of the war no other country in Western Europe provided such a lengthy period of undifferentiated compulsory attendance at school. We may therefore note that Norway found herself in a comparatively favourable position with regard to the ambition, common to the entire Western European cultural community, to prevent organisational differentiation at too early a stage.

Secondary education consisted of junior grammar school and gymnasium. The junior grammar school was originally the junior department of the secondary school - a successor to earlier intermediate schools. Its course lasted two or three years - following a seven-year primary school. The gymnasium course normally lasted three years, overlapping with the final year of the junior grammar school. After 1949, the normal system consisted of a five-year secondary school including both junior grammar and gymnasium. Rural secondary schools normally offered a four-year course.

The lower secondary school was started to give an opportunity to those pupils who, having completed the seven-year primary school, did not go on to the junior grammar school or the five-year gymnasium. The 1946 Act provided local authorities with considerable freedom in organising this type of school. The lower secondary school could take the form of a day school or an evening school; it could demand one, two or three years' attendance and the school year could vary in length. Even the subjects taught could vary considerably. The local authorities were required to decide whether the school should be voluntary, but the law permitted the local authorities to make the lower secondary school compulsory for one year following attendance at the seven-year primary school.

The origins and gradual development of the lower secondary school are of interest, as they reflect the need for an extension of the seven primary school years. Ten years after the Act was passed by Parliament, i.e. in 1956, the lower secondary school had been established in three out of four of the local communities. It was not yet, however, compulsory in more than a quarter of the local communities. In the majority of cases the courses offered were of a limited character. The lower secondary school never acquired a completely uniform organisation for the entire country. The one-year lower secondary school could to some extent be linked to the second year of the junior grammar school or that of the five-year gymnasium.

If we leave out some other rare forms of organisation, the Norwegian post-war school system can be outlined in the following diagram.


Lower secondary schools
Folk high schools
Gymnasia
(senior secondary schools)
Gymnasia
Junior grammar schools
and gymnasia
Primary schools

Squares enclosed by dotted lines indicate that the types of school in question did not always offer, but in some cases offer, the number of years of education stated in the diagram.

Even if this type of school system was advanced in terms of the number of years of compulsory uniform attendance at school, it nevertheless had its obvious weaknesses. One of these was the difference in education provided in the town and the rural areas. The country schools were clearly at a disadvantage, having fewer weeks of instruction per year and encountering difficulties in introducing English and other new subjects. This discrepancy was probably the main obstacle to an immediate and direct extension of compulsory attendance at school in all parts of Norway.

THE ORIGINS OF THE NATIONAL COUNCIL FOR INNOVATION IN EDUCATION (NCIE)

The Joint Programme

The point of departure for the Norwegian education reform programme after the War is to be found in the common policy of the Norwegian political parties announced during the liberation of the country in 1945, the Joint Programme. This includes the following statement on educational development:

"The entire school system must be co-ordinated so that the transition through its individual links, from the elementary to the highest educational level, may evolve smoothly from one to another, and this should apply equally to practical as well as academic types of schooling."

On the basis of this programme all the political parties contested the election after the War. The election was won by the Norwegian Labour Party, which assumed the task of putting into effect this programme for the democratisation of the educational system. In 1947 the Labour Party appointed the Co-ordination Committee to report on and propose measures to realise this programme.

The Co-ordination Committee

The Co-ordination Committee worked during the years 1947-52 on problems concerned with the improvement of the school system. In fact the committee had not been empowered to propose an entirely new Norwegian educational system. According to the directives issued, it had been instructed to improve and co-ordinate the "old" system. But discussion, both within the committee and outside it, was largely concentrated on whether this reinforcement could be accomplished within the framework of the school system then in force or whether an entirely new school system would be needed. The Government, which had appointed the committee, appears to have been of the opinion that the "old" school system should be retained, although strengthened and improved.

The majority of the members of the committee, however, took the view that the seven years of compulsory school attendance had to be increased to eight or possibly nine. During the years 1947-52 the committee made no less than 19 reports. In one of these, in 1949, it proposed that the lower secondary school should be compulsory throughout the country. In the final report, Summary and Points of View (Norw. Sammenfatning og utsyn), XIX, it proposed a more long-term reconstruction of the school system by the creation of a single school, divided into various streams, to be attended by all pupils. It was thinking in terms of a richly varied school system embracing both the junior grammar school and the lower secondary school. It was anticipated that such a school would be introduced and made compulsory throughout the country during the 1960s.

The committee also had views on how this objective should be attained. In the first place it would be necessary to prolong the period of attendance at school. Secondly, a co-ordinated school permitting streaming must be established after the seventh year of school attendance. Thirdly, the committee considered that centrally directed extensive experiment was needed. In this case - as in several others concerning the development of the compulsory school - the committee referred to the experiment in Sweden as a model. Internationally the co-ordination committee can be recognised as the Norwegian equivalent of the Swedish Educational Commission of 1946, the British Spens Report and the French Languin-Vallon Report.

The proposal for setting up a new institution, a council for innovation, did not come from the committee as such but from an individual member (Karsten Heli) and took the form of a special recommendation. The reasoning put forward seems, however, to have been shared by leading educational politicians in the Labour Party which was then in office. Mr. Heli declared that the Ministry needed a special experimental committee to put forward proposals for an entirely new school system.

Also in 1952 the Norwegian Secondary School Teacher Association (NSSTA Norw. Norsk Lektorlag) submitted a proposal to the Ministry of Education for experiments in secondary schools, suggesting that an independent council for innovation should be formed, with its own administration.

Parliamentary Report No. 9/1954

The Ministry seems to have attached considerable importance to Mr. Heli's view as well as to the proposal received from the NSSTA. The Ministry got in touch with the Norwegian Research Council for the Sciences and Humanities (Norw. Norges Allmenvitenskapliga Forskningsråd) which set up a committee to study the question. The work of this committee required much time and their report had not been completed when the Ministry issued its own proposal. On the basis of the material collected by the committee and its own deliberations the Ministry announced its proposal for experiments at school level in Parliamentary Report No. 9/1954.

This contains the following recommendation: "A special council should be established for experimentation. This council should represent experts on educational matters and scientific analysis. The administrative responsibility for the work of experimentation shall rest with the Ministry of Education. The Ministry intends to put forward proposals for such legislation as may be necessary to bring about increased experimental activity."

The proposed increase in experimental activity was included in a number of measures designed to improve the schools in general. These had two objects: the improvement of the "old" school and also the outlining of the new school system for the future. In the latter respect the Ministry adopted the resolution of the co-ordination committee to provide all the young people in Norway with a "complete, basic education up to the age of 16-17."

The twofold policy suggested by the Co-ordination Committee was thus retained, that is to say the reform of the old organisation and the creation of a new one. The proposal passed into law in Parliament following a debate. As far as the law affecting experimental activity was concerned, there was scarcely any debate. The legal basis of the council for innovation and its activities had been established.

The proposal was not considered to afford grounds for political controversy. This may have been because the proposal allowed scope for various interpretations. That the council for innovation should be an instrument for the creation of a new school and thereby for the elimination of the existing organisation was a subject that did not come up for discussion. With regard to forms for the strengthening of the school system, the dividing lines appear to have run within the political parties rather than between them. The ruling Labour Party, at least, seems to have contained representatives of both schools of thought. The educational programme was also discussed outside Parliament. Support for the programme was considerable, though still with no set ideas on the external and internal organisation of the school.

The content of the decision reached in Parliament in 1954 was thus not altogether clear, although there was unanimity on the subject of innovation. This unanimity resulted in the Innovation in Education Act of 1954.

Innovation in Education Act of 1954

In fact Parliament had passed an Enabling Act, granting the Government the right to dispense with educational legislation then in force in order to carry out experiment. Among the laws which the Government was empowered to ignore were three previously mentioned, that is to say the Primary School Act of 1936, the Secondary School Act of 1935, and the lower Secondary School Act of 1946.

Even if there may have been isolated doubts in the face of such sweeping, almost dictatorial powers granted by the Act of 1954, the law on innovation seems to have been regarded as a welcome encouragement to continual school reform. A permanent body concerned with experiment was expected to make day-to-day procedures easier than had the previous system of working solely with Government-sponsored committees of experts.

In any case steps had been taken in the formulation of the Act to prevent anarchy: the Ministry had been enjoined to submit an annual report to Parliament on the subject of experiment in education.

The Innovation Act consists of only six brief sections as follows:

1. "It shall be lawful, at primary schools, lower secondary schools, folk high schools, junior grammar schools and gymnasia, special schools, teacher training colleges and vocational schools for handicrafts and industry, His Majesty's consent having been obtained, to disregard, for purposes concerned with experiment, the regulations embodied in the appropriate school laws, whenever such experiment may be deemed well founded from the educational point of view and in the interest of the school. Under the same conditions permission may be granted to carry out experiments in schools other than those mentioned above and on other forms of schools.

2. The Ministry concerned shall have authority over the schools subject to this law.

3. In order to assist the Government with advice, initiative and supervision, His Majesty is pleased to appoint a council, the National Council for Innovation in Education, to consist of not more than seven members. His Majesty has determined the periods of duty for the Council and has issued instructions as to its composition and rules of procedure.

4. In order to obtain authority for experimental activity, the National Council for Innovation shall submit to the Ministry of Education plans for experimental instruction or shall pronounce on plans put forward by individual schools and others. This shall also apply to objectives and the qualifications such instruction may confer.

5. Questions concerned with grants from public funds for experimental activities within the Ministry of Education shall be brought up before Parliament in connection with the proposed budget for the schools or types of school in question.

Reports shall be made to Parliament every year on the subject of experimental activities initiated under this law.

6. His Majesty may issue whatever instructions may be necessary to ensure that this law be put into effect."

When it is stated in the first section of the law that it is the King who grants dispensations from the school laws, it is to be understood that it is the National Government in corpore which actually does so. An individual ministry cannot thus formally authorise such experiments.The ministry concerned is, however, mentioned in the second section of the law as directly responsible for experiments. Most schools come under the authority of the Ministry of Church and Education. Certain vocational schools are, however, subject to other ministries, e.g. the Ministry of Fisheries, the Ministry of Social Welfare and the Ministry of Agriculture. The list of schools given in the first section leaves little outside the scope of the law. Strictly speaking, the law of innovation applies to all instruction except that provided by the universities and corresponding institutes of higher education.

The same paragraph states that the conditions for granting dispensation from existing school laws shall be that the experiments shall be "well founded" and "in the interest of the school". The purport of these restrictions is more a matter of evaluation than of interpretation. In such interpretations educational researchers may have views which differ from those of teachers and headmasters as to what is "well founded". Pupils, parents, commercial and industrial interests may interpret the requirement with regard to "the interest of the school" in different ways. The final decision must always lie with the politicians, as soon as the politicians consider they have reason to adopt a point of view. In this respect the law is perfectly clear. The NCIE advises the Government, which reaches a decision which is subsequently laid before Parliament. It is also Parliament which annually decides on the economic resources to be made available for the work of the Council

It is thus quite clear that the Council is entirely dependent on the school policy adopted by the Government and Parliament in its work.

At this point we have reason to refer once more to the twofold nature of the objectives of reform. If experiment is to take place within the framework of an existing school system, the "old" school, it does not lie "in the interests of the school" to try out, for example, new relationships between compulsory and non-compulsory schools. It is not "of interest" to teach, in one and the same class, pupils aiming at the gymnasium and pupils aiming at the vocational school, etc. Innovations and educational renewal within the existing school are concentrated in such a case more on the second qualification requirement, namely that the experiment shall be "well founded". The emphasis of the experiment in such cases is increasingly concerned with scientific criteria. Research requirements of exactness and general applicability are stressed in the experiments.

If stress is once more laid on the role and importance of research in introducing a new educational organisation, the demands for scholarship and exactness will not always be of the same importance. Admittedly, the need for a more exact experimental activity will be just as great in principle, but in such a case the activity will be concerned with other objectives, in order to clarify facts and circumstances of significance for the creation of this new school. How to teach in one and the same class pupils who produce good results and pupils who produce poor results is a fruitful field for research and experiment even after the decision has been reached that teaching of both groups together will take place. But then the experiment is concerned not with if, but how, the instruction will be given.

The third section of the law states that the council shall "assist the Government with advice, initiative and supervision". The question immediately arises: to what end? What are the objectives? Are they concerned with the innovation of new materials and methods in the existing school or are they of a more far-reaching nature? The difficulties confronting the NCIE may be considerable, if and when some problem ends up in a "no man's land" in the world of school politics. Will the council then form its own policy for experiment?

We shall come back to these questions after we have examined the activities of the council. It is, however, already quite clear that no institution concerned with problems of innovation in education can function in a political vacuum. Even a person who is limited to so-called technical or educational innovation and working entirely within the established organisational framework has some aim in terms of educational politics, even if he is unconscious of the fact.

As far as the Council is concerned, problems of evaluation can prove peculiarly delicate and complicated, since the experiments apply to the school system in its entirety, without geographical limitations or restrictions in respect of categories of pupils, school levels or syllabuses.

In order to obtain more information as to how the NCIE has interpreted its duties, worked out its strategies and chosen its activities, let us study in greater detail the work of the Council in some vital fields of experiment and innovation. The most important of these concerns the extension of compulsory attendance at school from seven to nine years and the introduction of a common nine-year school.

INTERIM EXPERIMENTATION IN THE NINE-YEAR SCHOOL

From the beginning the NCIE was faced with the choice of developing the existing school system or of creating an entirely new system. The NCIE does not appear to have hesitated. From the outset the Council began to experiment with a comprehensive school for children up to the age of 16: that is to say, as far as basic structure was concerned, a new school system.

The Two-Year Junior Secondary School

Two particular circumstances created difficulties for experiment on a large scale. The first of these was the weak situation of the Norwegian rural primary schools. As we have seen, the rural areas had on the whole a less developed educational system at that time than the towns. It was therefore necessary to provide the country schools with timetables and syllabuses as well as other equipment in order to raise their standard to that of the town schools, if the intention was to develop a 9-year comprehensive school.

The second problem was that of the primary and lower secondary school laws, which limited compulsory school attendance to a maximum of eight years. In consequence a ninth year at school would, for the time being, have to be voluntary.

In 1955 the first of these problems, the reinforcement of the rural primary school, came somewhat closer to a solution. The rural school law of 1936 was amended so that more favourable regulations governing the grant of public funds facilitated a changeover to full-time studies instead of half-time studies (or other form of part-time studies) at rural primary schools. It had now become easier to centralise, above all, the attendance at school of the older pupils in a manner which could be smoothly adapted to the requirements of the various local communities. Thus it was possible to bring about centralisation in certain subjects only, for example English and practical subjects. Centralisation could also be limited to certain weekdays. This reinforcement of the rural schools made it subsequently possible to carry out an experiment in these schools on the extension of compulsory school attendance in the same way as in the town schools.

The second problem encouraged the NCIE to take one of its more important initiatives, namely the proposal to make even the ninth year of attendance at school compulsory. This proposal was embodied in the NCIE's report on innovations in school during the years 1955-56. As we shall see, the proposal resulted in a new law in 1959.

During the autumn of 1959 the first experiments were conducted on the two-year extension of the 7-year primary school. During the first year the experiments took place in three rural areas (Malm in Nord-Tröndelag, Sykkylven and Örsta in Möre og Romsdal). Two years later, seven more rural communities were included in the scheme. A further six were added to the list in 1958 and from 1959 onwards the number was increased by twelve new rural communities, making 28 in all.

Throughout this period it was the NCIE which proposed to the Ministry of Church and Education the adoption of experiments in new local communities. The Report does not, in fact, state that it was the NCIE which took the initiative in individual cases. Contacts between the NCIE and the MCE were obviously very lively, as also were the contacts with the local authorities concerned.

The NCIE termed those experiments "interim" to indicate that a start had not yet been made on the new school, the 9-year comprehensive school. The experiments thus concerned the 8th and 9th years and affected only slightly the first seven years of primary school. The two last years in the experimental schools were called "the optional stream junior secondary school" (Norw. den linjedelte ungdomsskolen). In practice this consisted of two schools under the same roof and sharing a common administration. It was a two-year junior grammar school, that is to say selective school, plus a two-year lower secondary school in which attendance during the second year was voluntary. These two streams were entirely separate in the sense that it was not possible to proceed from the lower secondary school to the junior grammar school. Transfers were, however, permitted in the opposite direction, which normally implied that the pupil had failed in the junior grammar school. The lower secondary school was named "the preliminary vocational line", while the junior grammar school was named "the preliminary gymnasium line".

The NCIE drew up timetables for the 8th and 9th years, as a result of which the two streams came closer together. It thus became possible to learn English in the preliminary vocational streams. Similarly, in the preliminary gymnasium stream, pupils could forego one of the two modern foreign languages. The main achievement of the experiments was probably to be found in the administrative co-ordination of the two streams which had hitherto followed quite separate paths.

The NCIE and Educational Planning

In their report on experiments in schools in 1956-57 the NCIE recommended an Act to establish a new 9-year school. The NCIE sketched the probable future organisation of such a school as consisting of 6 years of primary school and 3 years of secondary school. As a motivation for this classification the NCIE cited the need for special premises and subject teachers with effect from the 7th year. In exceptional cases the NCIE was prepared to permit the 7 + 2 type organisation.

The NCIE took up at the same time the question of the suitable size of a school. In order to ensure rational use of premises and teachers the NCIE prescribed a minimum of 6 classes at secondary school level. The NCIE recommended a minimum population of 4,200 to sustain a school having an independent secondary level. This would provide about 75 pupils per year to study in three parallel classes.

One major problem was that less than one-third of the local communities in Norway possessed the minimum population recommended for a comprehensive school of their own. In many cases, therefore, agreements were drawn up between neighbouring communities to establish common comprehensive schools. Meanwhile work proceeded on a reform of local government throughout all Norway. The organisational requirements of the schools became one of the most important factors in the creation of the new units of local government.

Examples of the many problems tackled in the course of the experiments on the comprehensive school include the work carried out at the same time by the NCIE on the transport of pupils. In the Report of 1956-57 the NCIE recommended a maximum of 30 minutes each way for pupils in Classes 1-3, 40 minutes for pupils in Classes 4-6 and 45-60 minutes for Classes 7-9.

Of still greater importance seem to have been the recommendations made by the NCIE in the Report of 1956-57 on the standards for school buildings. At the same time as these standards were concerned with the size of rooms and equipment based on the new organisation and forms of work the NCIE wished to recommend, they were also intended to counteract unmotivated increases in costs.

The NCIE's recommendations proved decisive in all essentials for subsequent innovations and thereby also for the introduction and organisation of the new 9-year school.

The NCIE and Streaming

During the period of the interim experiments the problem of streaming was not a major source of controversy. From the 8th Class onwards the school was clearly differentiated. The weakness of the system was that the gymnasium-preparing stream assumed on the whole the character of a positive selection, whereas the pre-vocational line became a negative selection. The instruments for selection after the 7th year to the gymnasium-preparing stream were as follows:

1) intelligence test
2) written test in Norwegian
3) mathematics test
4) final marks on leaving primary school
5) wishes of parents and pupils

No hard and fast rules were drawn up for selection. The wishes of pupils and parents could not always be met in respect of choice of stream, because the number of places available on the gymnasium line was limited.

During the period of interim experimentation the allocation of places was as follows:

Stream	1955-56	1956-57	1957-58	1958-59	1959-60
Gymnasium	33%	43%	42%	49%	48%
Preparatory Vocational	67%	57%	58%	51%	52%

As a result of the annual increase in the number of local communities participating in the reform it is not possible to make a direct comparison of the number of allocations. But it would appear that the gymnasium-preparing stream increased at the expense of the vocational.

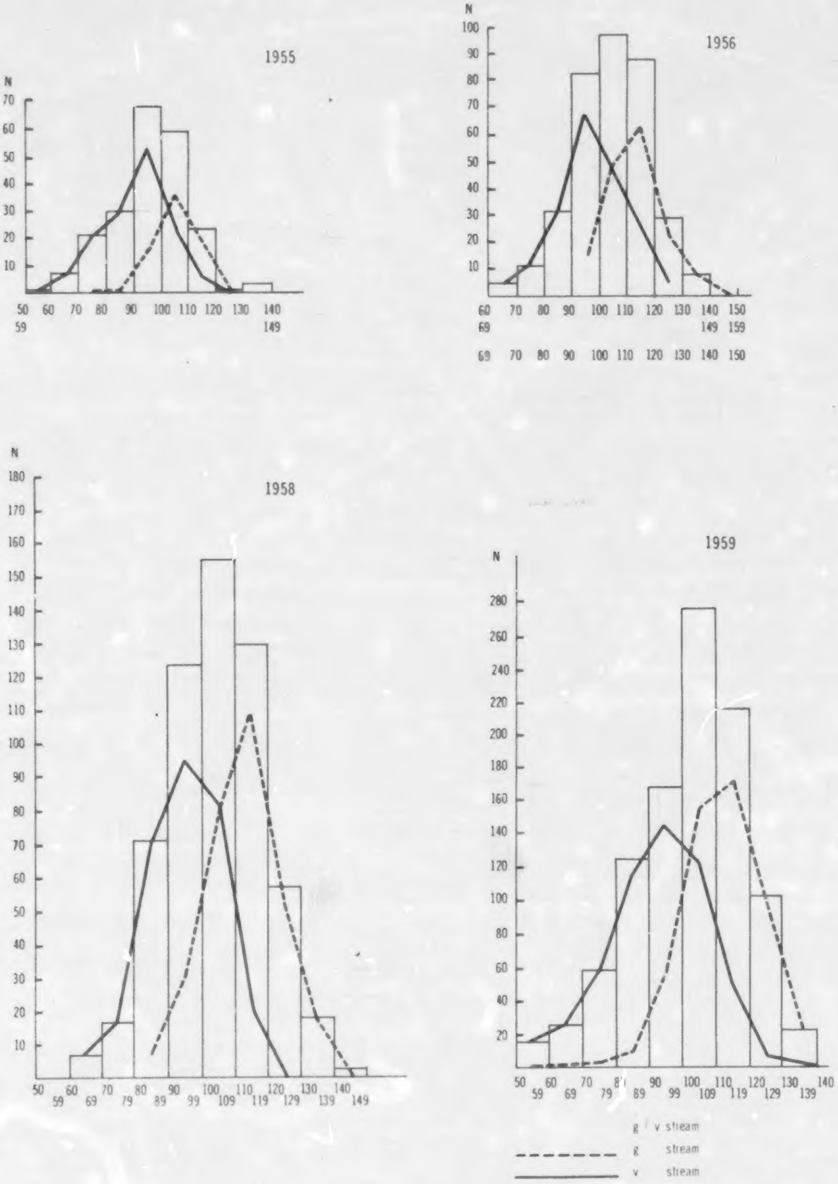
No controlled and consistent follow-up of the experiments was attempted by the NCIE, which at that time possessed neither the staff nor the economic resources for an evaluation in the strict sense of the word. It could be noted, however, in connection with the problem of streaming that pupils of the gymnasium-preparing stream had been awarded higher average marks than pupils on the vocation-preparing stream. Overlapping between the streams was, however, considerable.

Pupils in the 8th class underwent an intelligence test. The results may be seen in the following diagram (page 187) for the years 1955-56 and 1959-60.

As is apparent, the gymnasium-preparing stream had higher average values throughout. More worthy of note is the great overlap of results for both streams. It is therefore a matter for discussion whether this differentiation procedure based on selection to one stream and relegation for the leftovers to the other was, in fact, the most suitable. The NCIE view was as follows: "The material indicates that in a situation in which the school exerted considerable influence on selection, it was not possible to bring about a homogenisation of the groups of pupils. A school structure consisting of two parts from the age of 14 onwards seems therefore to result in a grouping in which factors other than intelligence and proficiency variables prove decisive to a considerable extent. In addition, the selection criteria - level of intelligence and proficiency at school in the 7th class - only prove moderately capable of forecasting success in the 8th and 9th classes. The relationship between the selection criteria and proficiency in the final phase of the 9-year school turns out in the majority of cases - expressed in coefficients of correlation - to lie between 0.20 and 0.50. This means in actual fact that even if some conclusions may be drawn on the subject of an extension of compulsory attendance at school on the basis of the above-mentioned criteria, the possibilities of forecasting future development are very limited." (Forsøk med 9-årig skole, Forsøk og Reform i skolen, No.12, p.16.)

With regard to streaming within the vocation-preparing line the NCIE soon reached the conclusion that the majority of the pupils were

INTELLIGENCE TEST RESULTS AND CHOICE OF STREAM ON ADMISSION TO 8th CLASS



placed in relatively few subject areas. The three largest subject areas were housekeeping (mainly girls), handicrafts (mainly boys) and commercial and secretarial. From this the NCIE drew two conclusions: the first of these was that a limited number of subject areas would suffice for the majority of local communities in Norway. The second was that the choice of vocational subject area was in the main independent of the industrial, commercial and vocational structure of the local communities. Thus the majority of the communities could largely follow one and the same model for the establishment of subject areas in vocation-preparing education.

Costs of Experiments

The activities of the NCIE were mentioned in the budget proposals submitted annually by the Ministry of Church and Education to Parliament. It is, however, remarkable that no actual report of these activities was given throughout the entire period covered by the interim experiments. The fifth section of the Innovation Act states expressly that Parliament should receive every year a report on the activities initiated under the terms of the Act.

Obviously the experiments in progress were not regarded as a subject for debate as long as the seven years of primary school education were retained intact and additional education provided merely by a two-year extension in the form of a 9-year school offering two differentiated lines of instruction.

This was not thought to constitute a threat to the junior grammar school, since the gymnasium-preparing stream was in all essentials a copy of the junior grammar school. And the vocation-preparing stream was seen as a reinforced version of the lower secondary school.

One reason why these activities could be pursued so freely was that the necessary grants to finance them could be obtained without difficulty. By applying to the entire range of the 9-year school the financial regulations for the lower secondary school, which were more generous than those for the junior grammar school, it proved possible to defray the extra costs arising from experiment in the local communities.

During this period the NCIE received no special grants over and above those derived from public funds for the work of the NCIE itself. The office of the NCIE at the time was a small working unit. When the NCIE started work in 1954, the office staff consisted of one expert on school experiments and an assistant. The number of employees increased subsequently but throughout this period it consisted of only a very small group.

Summary for the Period 1954-60

Looking at the NCIE as an institution for innovation and the reform of the Norwegian school system we may sum up its first period as follows:

1) The NCIE worked closely and continuously with the Ministry of Church and Education at the start of the experimental activities. Parliament was not for the time being involved in these activities. General political debate on educational matters was comparatively calm.

2) The objectives and strategy of the NCIE for educational renewal were entirely in harmony with those of the Ministry. The main objective was to prepare for the introduction of 9-year compulsory schooling.

3) The strategy, partly depending on prospected costs for school buildings, implied experiment in a gradually increasing number of local communities with the introduction of a 2-year streamed continuation school as an extension of the existing 7-year primary school. This 9-year school comprised paths of study previously included in the junior grammar school and the lower secondary school.

4) The changes brought about by the NCIE were of interim character and implied a gradual move towards closer relations of two hitherto entirely separate branches of education within a common administrative structure.

5) The NCIE worked out new timetables and syllabuses for experimental activities to be followed, with some variations, in the local communities. Among the innovations were various vocational subjects as well as a series of changes in the status of modern foreign languages.

6) The NCIE issued planning instructions and recommendations to the local authorities affecting a) the size of schools, b) how far pupils should travel and c) the design of school buildings. In the main these recommendations were adopted.

7) The NCIE functioned first and foremost as an initiator. Experiment was only followed up to a limited extent with a survey of the effects. No evaluation in the strict sense was attempted by NCIE.

8) NCIE's actions for educational reform and innovation were mainly aimed at the external organisation and structure of the school and only to a minor degree at internal problems, teaching aid and teacher training questions. Experiments affected the content and work of the first 7 school-years only slightly.

9) NCIE's activities were throughout referred to as "experiments", although they were clearly and unconditionally committed to an extension of compulsory school attendance from 7 to 9 years. To facilitate this the NCIE suggested a legislative amendment.

EXPERIMENT IN THE NINE-YEAR COMPREHENSIVE SCHOOL, 1960-70

The Elementary Schools Act

In the autumn of 1958 the MCE laid before Parliament a proposal for the amendment of the law concerning primary schools. This provided, among other things, that local authorities, having reached agreement with the Ministry, could carry out experiments in conformity with the Innovation in Education Act and thereby make the ninth year also compulsory for pupils. As we have previously pointed out, the NCIE had indicated as early as 1955 that this step was desirable so that experiments on the 9-year school could be realistic.

Parliament enacted the proposal. For the first time Norway had a primary school law common to both the towns and the rural areas. This provided a basis for experiment on a 9-year comprehensive school and in turn this enabled the NCIE and the local authorities involved to undertake a more thorough experiment even in the first seven years of schooling.

The debate preceding the parliamentary resolution took up the question, among others, of the organisation appropriate to the 9-year school. A minority in Parliament wished to allow local authorities considerable freedom, implying that the nine years of compulsory school could consist of 7 years' attendance at primary school plus a further 2 years at junior grammar school or lower secondary school (that is to say within the "old" school system). But the majority - and thus Parliament - wished to lay down as a condition for experiment that the basic aim was the establishment of a 9-year integrated school (that is to say a "new" school system). So it was decided that the new system should be built up in accordance with the comprehensive principle, and the old system of parallel schools was rejected by Parliament.

This was a decisive turning point for the work of the NCIE. The interim period had come to an end and experiments on the comprehensive school could begin. Local communities newly introduced into the system were enabled to participate immediately in this form of experiment, while the local communities already involved were invited in a circular from the MCE to go over to the 9-year comprehensive school. During the years 1960 and 1961 these communities abandoned the former experimental model (primary school plus 2-year continuation school) and replaced it with the new model - the 9-year comprehensive school.

One of the major questions affecting the new experimental model was that of differentiation: ought there to be only two years of streaming, that is to say 7 + 2, or should the model already recommended by NCIE with three years of streaming, that is to say 6 + 3, be adopted? The majority of the local authorities followed NCIE's recommendation of 6 + 3. A minority decided for special reasons that 7 + 2 would prove more convenient. Isolated cases included even 8 + 1 or a completely undifferentiated 9-year attendance at school.

The local communities involved in experimentation subsequently increased in number as follows:

1961-62	54	communities
1962-63	72	"
1963-64	105	"
1964-65	124	"
1965-66	178	"
1966-67	227	"
1967-68	292	"
1968-69	336	"
1969-70	370	"
1970-71	410	"

At the end of 1970-71 only 41 of Norway's 451 local communities remained unaffected. The 9-year school was more or less universal.

Parliament adopted no standpoint on the subject of streaming but referred the whole matter for further experiment. As far as the NCIE was concerned, this meant a transference of interest to questions associated with internal school educational experiment. This brought to the fore the question of a new syllabus.

Work of the NCIE on the Syllabus

As early as 1955 the NCIE began its great work on an experimental syllabus for the 9-year school. This was the NCIE's first major contribution to education. Even though the NCIE had at its disposal Swedish experimental timetables and syllabuses, this does not mean that the syllabus presented by the NCIE in 1959 should be looked upon as anything other than an entirely independent work in all essentials. The syllabus was published in 1960 and provided a basis for the fresh start for the NCIE following the interim experiments.

The NCIE was helped in this work by a number of experts, whose products were subsequently brought up for discussion, even if still to a limited extent, at meetings with authorities on various subjects and representatives of the teachers' professional organisations.

The NCIE experts devoted special attention to devising curricula in social studies, aesthetic studies and subjects concerned with vocational training. An overriding principle was that all pupils, even those attending the differentiated upper stages, should have studied a core of subjects in common and that, around this core, there should be arranged elective subjects and activities wholly in accordance with the pupils' special interests and inclinations.

Already, in its 1956-57 Report, the NCIE presented a proposed timetable for a 6-year primary stage and a co-ordinated 3-year secondary stage. The essentials of this plan were preserved in the version subsequently revised for final presentation. This means that the differentiation which already existed in the primary school between those pupils who studied English and those who did not was abolished. Also different timetables for boys and girls were abolished. In the 7th year domestic science was obligatory for both boys and girls. The plan emphasised the integration of science subjects, namely biology, physics and chemistry. The same applied to subjects with a social basis such as history, geography and social studies. Vocational subjects started in the 8th year. The syllabus also included advice and information for pupils in choosing relevant subjects for their careers.

Differentiation could be carried out in two dimensions. The pupils were divided into streams in accordance with their choice of subjects and also, irrespective of the above, into various levels in the subjects of Norwegian, mathematics, foreign languages and initially also physics.

Streaming was introduced for the 8th and 9th years. Two streams were set up, the 'general theoretical' and the 'practical'. The first contained two sub-divisions, one offering both English and German, the other either language (usually English). In the final year the practical stream was divided into five sub-divisions: technical, domestic science, commercial, agricultural, and fisheries and shipping.

The second form of differentiation provided that instruction with effect from the 7th year should proceed according to various course levels in subjects common to both lines. Course level 1, applicable to Norwegian, mathematics and English, covered the minimum requirements in these subjects and was adapted to suit the majority of pupils in the practical stream. Course level 2 was "moderately difficult". Course level 3 was the most demanding and had to be followed by those who intended to study at the gymnasium. Only two such plans were drawn up, for German and physics.

By means of this two-dimensional form of differentiation the NCIE aimed at establishing a varied and flexible organisation. However it shortly became evident that the two dimensions became one, so that the "higher" courses operated in the theoretical stream and the "lower" in the practical stream. It subsequently became clear that it was just this tendency towards permanent grading of status and level that caused Parliament to intervene and reduce the rich flora of differentiations.

The NCIE has revised the syllabus a number of times in recent years. During the period 1962-65 annual proposals for new timetables and syllabuses were presented for the 7th, 8th and 9th years.

Problems of Streaming before Government and Parliament

If the syllabus was NCIE's first major independent contribution to education as the agent of school reform, it also led to the first obvious rebuffs experienced by the NCIE at the hands of the political authorities. It was precisely with regard to the question of differentiation that the Government and Parliament were not prepared to accept the NCIE's solutions in every detail.

Mention has already been made of the remarkable fact that the MCE did not, as prescribed in the fifth section of the Innovation Act, submit the first reports of the NCIE to Parliament. The first report to reach Parliament was contained in the Ministry's Report No.75 for 1959-60. Parliament took up the matter of NCIE's reports including the "Syllabus for Experimentation in the 9-Year School", by arranging for a thorough review of the reports by the Parliamentary Committee for Educational Affairs (Inst S No.219, 1960-61) and also by a debate which lasted for ten hours. It is probably exceptional for a nation's parliament to examine and evaluate the organisation and working conditions of a school system in such detail. Behind this involvement it is easy to recognise the feeling among politicians that the problems of streaming were not solely the concern of educationalists and administrators but rather a social question of considerable political depth.

Many speakers warned against too early differentiation, which, it was feared, might inhibit the development of pupils from environments lacking in school traditions. Parliament declared that differentiation at an earlier stage than under the old system was not desirable. Not until the 8th year was streaming acceptable. And it should rather be thought of as a practical means of guiding the individual pupil than as a binding form of differentiation of importance for future studies. The NCIE's proposal in the syllabus for differentiation from the 7th year was rejected by Parliament. Strangely enough Parliament was not consistent on this point, but willing to make an exception for the subject of English. This was probably because in many cases English had already been introduced into the 7-year primary school, where it had already led to a division of pupils. Thus the 7-year primary school was not entirely undifferentiated.

In this context Parliament resolved, as had the Ministry in its proposal, that there should be a free choice of subjects. The pupil and his parents should not be prevented by the school from freely choosing the subjects he desired to study. It was similarly resolved that the pupil could not be refused admission to a stream or course unless he had first shown through lack of proficiency that he was unable to keep up.

The standpoint of Parliament on the problems of differentiation in 1961 is a milestone in the development of the Norwegian educational system. It must be looked upon as a consequence of the equally firm standpoint adopted two years earlier on the subject of the extension of compulsory attendance at school. Following this resolution the NCIE had to revise the syllabus in part. Subsequently the differentiation in level in the 7th year of the experimental school was dropped, with the exception of English, in accordance with the desire of Parliament.

The standpoint resulted, furthermore, in the NCIE being able to observe in greater detail the internal educational problems of the new school. The experiments carried out during the 1960s bear the mark of this change. The scope of the problems in this field thereby served to give the work of the NCIE a less uniform character. More than had previously been the case the measures taken by the NCIE were of a remedial nature. At the same time as interest veered from external, organisational matters to internal, instructional problems, demands increased for a stricter procedure for the experiment to include the collection of data and evaluation in accordance with a more exact definition of the problem. The difficulties encountered by the NCIE in experimenting in these more advanced forms will be examined in due course.

Experiments in Streaming

The parliamentary debate of 1961 was decisive in certain respects for future policy and development in school. In other respects it proved less decisive. In matters affecting organisation and streaming it was possible in the course of the debate to distinguish between two views, one conservative and the other more radical. The first, mainly represented by politicians of the Conservative Party, stood for a strict organisational differentiation after the 7th year, the streams leading to studies at the gymnasium being clearly indicated. In the opposite camp, represented for the most part by the Labour Party, the politicians were out to defend the 9-year comprehensive school with streaming at as late a stage as possible and in principle lines of equal status.

Victory went to the radicals. What had been decided? Briefly, that the choice of studies should be free and postponed until after the 7th year. (We ignore for the time being a decision to increase instruction in divinity at school.) In the second main question - that of equal status for the two lines, Parliament contented itself with general statements. Criticism was directed at the NCIE for having given priority to the 'theoretical line' over the 'practical line' and thereby adopting a standpoint which political authorities alone could take up. This charge must be regarded as fairly undeserved. The NCIE had not previously received any clear directives for its work on the syllabus. In this situation the NCIE was forced to look upon the 'theoretical lines' as selective and requiring qualifications. What Parliament actually sought was a radical reform of this system of selection. As we shall indicate shortly, this was much too complicated a problem to be solved on the basis of certain general declarations; in actual fact equivalent status for the streams required a radical reconstruction of the school system at the level of the senior secondary school.

The NCIE took upon itself the task of starting experiments with less emphasis on differentiation. During the years 1963-65 streaming in the 8th and 9th years was entirely abolished in most local communities. Experiments were also conducted with a Swedish model, that is to say with streaming in the 9th year only. In the revised syllabuses streaming was entirely eliminated.

The NCIE also tackled the long-discussed problem of a voluntary tenth year at school and worked out teaching plans for the purpose. This extra year was mainly intended to make it possible for pupils who had taken the 'practical line' to attend the theoretical courses not included in their choice and thereby qualify for admission to the gymnasium. The introduction of a tenth year must also be seen as a consequence of the strong position of the three-year "realskola" and as a consequence of the general need for extended education. The abolition of the division into two streams was regarded as a decisive victory for the principle of the comprehensive school. But the problem of differentiation had not been completely solved by it. The differentiation within the key subjects on the "higher" and "lower" levels was something which the NCIE did not consider it possible to abolish. Behind this was the overshadowing problem of regulations on qualifications for admission to the gymnasium. In this respect the classification by levels within the various subjects was obliged to take over the task of differentiation hitherto implicit in the choice of line.

Problems of Qualification and Evaluation

The normal way to the gymnasium was via the 7-year primary school and the 3-year junior grammar school. When an increasing number of local authorities had experimentally introduced a 9-year school, the question arose as to whether the new system provided sufficient grounding for senior secondary school studies. And even if the new school was accepted, it had yet to be decided whether such acceptance applied to all lines and courses.

In 1958 the Government appointed a special committee, the Qualifications Committee for the 9-Year Comprehensive School, to solve these problems. The following year the committee decided to characterise final marks awarded in the 9th class as conferring sufficient grounds for senior secondary school studies and equivalent in principle to the junior grammar school certificate.

On the other hand the committee did not reach an immediate decision on the more sensitive question of the equivalence of various lines and choice of subjects. On several different occasions Parliament expressed the desirability of making the various lines equivalent in status but could not suggest any exact solution for bringing this about. The problem was referred to the MCE for necessary action.

In their final report the Qualifications Committee declared that admission to the gymnasium should require qualifications in accordance with the most advanced levels in the various subjects. The Government subsequently issued instructions on this basis. In practice, therefore, pupils who had studied on the 'practical line' or who had taken courses of an equivalent nature were excluded from the gymnasium.

The intention of the NCIE to offer certain pupils a "lower" level in some subjects, that is to say an easier course than that required for qualification for admission to the gymnasium, was that each pupil should thereby receive optimal instruction. By avoiding a much too difficult course he would thus learn more. Free choice led, however, to a powerful swing in favour of the "higher" levels, so that pupils could thereby keep open the door to the gymnasium.

This problem was associated with another, the subject of discussion for several years, that of common evaluation. Should all pupils, irrespective of whether they had chosen an easier or more difficult course, be marked on one and the same scale or should different scales be used at different levels? With regard to the swing in favour of more advanced courses the NCIE could find no solution other than a common evaluation. In 1964-65 the NCIE could base this proposal on the results of an extensive investigation. Approximately 1,600 pupils on various levels were given the same test in mathematics. The results reflected clear average differences between groups of pupils but at the same time a marked overspread. In reality, therefore, many pupils who had chosen "easier" courses were qualified to study at the gymnasium.

In 1965 Parliament debated the proposal for a common evaluation. The Conservative view was that qualification to study at the gymnasium should be based on a choice of higher courses and that a common evaluation should not be applied for this purpose. The majority of the members of Parliament supported the NCIE's proposal in favour of the common evaluation, but no resolution was adopted on this question.

A number of speakers opposed the view that a choice of lower courses should bar the way to the gymnasium. It was even claimed that the use of different scales of marks would destroy the unity of the comprehensive school which Parliament was unanimous in wishing to introduce.

The common evaluation was therefore regarded as a necessary consequence of the comprehensive school system and a condition for fair selection for the gymnasium. The same conclusion was reached by the committee appointed in 1963 to report on introducing the 9-year comprehensive school throughout the whole of Norway. When the Coalition Government, which succeeded the Labour Government in 1965, laid their proposal on this subject before Parliament in 1967 (see below), the MCE rejected the idea of a common evaluation. This point of view was based by the MCE on criticism from various quarters, including the Council for Secondary Education, of the principle of arranging common examinations for pupils who had taken courses having entirely different structure and content. Different scales of marks were thus retained for different courses. The problem was thereby temporarily but not finally solved.

Final Introduction of Comprehensive Schooling

The proposal of the above-mentioned primary school committee was made the basis of a bill put up to Parliament by the MCE for the introduction of comprehensive schooling. The resolution of Parliament on this matter led to the Comprehensive School Act of 1969 which, with effect from 1st July 1971, superseded, among other things, the previous laws for the primary school, the lower secondary school and the junior grammar school. Experiment on comprehensive schooling was by this time so advanced that in many respects the law merely confirmed the actual state of affairs.

The Act deals, among other things, with the division of the country into school districts as well as with regulations governing the maximum and minimum numbers of pupils. The comprehensive school is organised on the 6 + 3 years model. According to present plans, it will be established throughout Norway by the school year 1974-75 at the latest.

The law makes the MCE responsible for determining curriculum standards and the framework for subjects and courses. Thereby the streaming of pupils in lines and on courses, the questions of qualifications and evaluation are to be regarded as matters for the application of the law. Work on them has continued with unflagging zeal on the part of the NCIE. Questions affecting the syllabus in all its breadth, and so also the problems of application referred to above, were entrusted in 1967 to a special curriculum committee. The work of this committee has been completed but has not yet resulted in a new curriculum plan. It is clear, however, from the reports hitherto submitted by the committee that the favoured long-term solution is the removal of all forms of organisational differentiation in the entire comprehensive school. Lines and levels would thus be eliminated. The comprehensive school would offer a unified, undifferentiated schooling from start to finish. The undiminished need for differentiation because of the circumstances and interests of the individual pupil would be satisfied by various forms of individualisation within the framework of the class.

In such a future situation the NCIE and its work cannot but be changed. The principal task of the NCIE during the past fifteen years has been to prepare and facilitate the introduction of the 9-year school. The work which remains to be done is surely to achieve the objectives of this school. In section 17.5 of the Comprehensive School Act it is emphasised that experiment - continuous revision - should also be the concern of local authorities (school boards) and regional authorities (chief education officers):

"The chief education officer can authorise teachers or schools to effect changes within the framework of the curriculum, as long as these are of educational interest and compulsory subjects are not eliminated and provided that the purpose of the instruction as a whole is not adversely affected. Before such authorisation is granted by the chief education officer, the school board shall express their opinion.

"The Ministry can authorise teachers or schools to dispense, for experimental purposes, with the regulations governing the composition of subjects, the choice of materials, the compass and aim of teaching in the individual subjects, provided that the requirements of the instruction as a whole are not reduced in consequence. Before the Ministry authorises such applications, the school board shall express their opinion. Such an experiment must be carefully prepared and be in the interests of the school."

Summary for the Period 1960-70

The activities of the NCIE in the 1960s may be summed up as follows:

1) The close and direct co-operation between the NCIE and the MCE continued up to 1965. From then on contacts were less lively and directives from MCE were less clear. This resulted in a more independent status for the NCIE.

2) At the beginning of the period the NCIE put forward a proposal for a complete syllabus providing for a differentiation of courses in the 7th-9th years and streaming in the 8th-9th years. In 1961 Parliament opposed the differentiation of courses in the 7th year (except in English) and instructed the MCE and the NCIE to revise the syllabus on this basis.

3) The period is characterised by a transition from a system consisting of 7 years of primary school plus 2 years of continuation school to a system consisting of a unified 9-year school. The organisational pattern 7 + 2 was replaced by 6 + 3. Following the parliamentary debate in 1961 streaming was abandoned. Differentiation of course levels lasted throughout the period, however.

4) Two problems were acute throughout the period, those of qualifications and of evaluation. The NCIE proposed, on the basis of experience gained from experiment (the obvious overlapping of results of different course levels), that the pupils' results should be marked according to the same scale irrespective of the course level chosen. The MCE insisted that the courses should be marked independently and that admission to the gymnasium should require choice of the highest course level in all subjects which were differentiated in terms of levels.

5) Parliament passed an Act in 1969 establishing the 9-year comprehensive school. Since 1971 this has been fully applied. A special curriculum committee was appointed in 1967 to draw up a proposal for a more definitive curriculum for the 9-year comprehensive school.

6) A certain changeover in the experimental activities of the NCIE from external-organisational problems to internal-instructional problems took place, mainly during the latter part of the 1960s.

Part II

THE INSTITUTE AND ITS ACTIVITIES

NCIE NOW

In this section we shall examine the current organisation of the NCIE, its staff and economy. In addition we shall make a detailed study of the relationship of the NCIE to the Ministry and other Councils.

Organisation

The organisation of the NCIE consists of a board (the Council) and a secretariat.

The Council itself has a membership of nine, each member being appointed by the Ministry of Church and Education for a period of three years. Of those appointed for 1971-73, five members (including the Chairman) had served also during the previous period. The members are usually teachers or principals of various schools and educational institutes, including teacher training colleges and universities. For the period 1971-73 the Council contains one member who is not a teacher but a wholesale merchant by profession. The Council has an executive committee (EC) with a membership of three: the Chairman, Vice-Chairman and one other member of the Council. Membership of the Council is almost entirely male. During the current and previous 3-year periods there has only been one woman serving on the Council with eight men.

All essential matters are dealt with by the Council and its executive committee. The number of meetings of the Council can perhaps be seen as an indication of the activities of the NCIE. During the last five years meetings have been held as follows:

Year	Council Meetings	EC Meetings
1966	3	6
1967	3	5
1968	5	5
1969	5	5
1970	8	9

Council meetings are often combined with visits to schools and school districts of current interest from the point of view of experiment. During 1970, for example, 7 out of 18 days on which the Council met and 3 of the 11 days on which the executive committee met were devoted to study visits and inspections of schools and school districts. The NCIE also holds meetings together with the Councils representing different school sectors (see below).

In the spring of 1971 the secretariat consists of six sections (see below). It is headed by a director assisted by a deputy.

Director and Deputy					
Teacher Train. Coll.	Secondary School	Comprehensive School	Information	Research Evaluation	Clerical, Technical

The working organisation, however, is not rigid. In consequence there are no written instructions to lay down tasks for the sections Nor are there instructions in force for individual members of the staff. In certain cases it even seems uncertain to which section a particular project may belong (e.g. which section is responsible for the project "co-operation at school"?) In other cases it happens that a given activity (research/evaluation) is both assigned to a section of its own and accepted as a feature in some of the other sections.

The fact that the internal organisation lacks a rigid structure is apparent from the personnel particulars given in the annual reports. Hitherto section membership has not been published in the reports. In the report for 1970 - as in those for the immediately preceding years - the list of staff is arranged according to type of employment and year of appointment.

The loose structure of the secretariat is closely associated with the types of employment of the staff. Only a small minority of the staff of NCIE are permanently employed. In the spring of 1971, for example, there were 9 permanent posts for inspectors and consultants compared with 25 similar posts which are filled for one year at a time. Yearly appointments may be renewed for 3, 4 or 5 years but not longer. The NCIE has recently requested a gradual replacement of all permanent appointments by temporary appointments of 3-5 years' duration. The motives for this have been summed up by the Director as follows:

"In the opinion of the Director, our experiences of temporary appointments are very satisfactory. The NCIE maintain continuous contact with experienced teachers who subsequently return to their schools and help to create local experimental environments. The experience we have had of short-service appointments and permanent appointments has convinced me that the NCIE should go in solely for the former. On a council working on innovations there should be no permanent appointments. After working for some years in the secretariat, permanent personnel can easily become a conservative element. The fact that they have a permanent place is in itself an obstacle to the admission of people with fresh ideas. The purpose of short-service appointments is to cover the requirements of the various educational fields and the various school research and experimental projects where it may be surmised that the NCIE has a comparatively permanent need of staff. This group of leaders should be as well remunerated as those who receive temporary appointments." (Item No.22/71, Council Meeting, 25th-26th February, 1971).

On the NCIE two kinds of staff meeting are regularly held each week, one being a meeting for mutual information for all personnel (approx. 1 - 1½ hrs) and the other for senior staff members only. These are also brief and deal with questions of policy and decisions made by the Director between meetings of the Council.

Staff

The following list of personnel is based on information dating from March 1971. Some of the appointments are not filled at present and the particulars therefore apply partly to the current situation and partly to the estimated staff requirements for the activities planned for 1972:

1. Management

   1 director
   1 deputy director

2. Section for teacher training colleges

   1 inspector
   2 consultants
   1 project leader

3. Section for secondary schools

   1 inspector
   6 consultants or co-ordinators

4. Section for comprehensive schools

   1 co-ordinator
   8 consultants or project leaders

5. Section for research and evaluation

   1 research officer
   6 research consultants
   4 research assistants

6. Others

   1 information officer
   1 administrative co-ordinator
   5 consultants or project leaders (for work in several sections)
   12 senior secretaries, secretaries and clerks

The number of persons employed by the NCIE is thus 36 on the consultant, inspector or corresponding level and 16 on the assistant or clerical level. Some of the clerical staff are employed on a part-time basis, but otherwise employment is full-time.

The number of staff of the NCIE has increased in recent years as follows (according to annual reports):

	Inspector, consultant etc.	Assistant, clerical worker etc.
1966	8	5
1967	9	6
1968	22	12
1969	33	14
1970	36	16

The members of staff are very homogeneous with respect to their professional background. Almost all are teachers or principals of various types of schools. One or two are school psychologists. The research staff members possess the Scandinavian 'Cand. Ped.' degrees - Master's degrees in Educational Psychology - (the four research assistants are studying for this degree).

The Relationship of the NCIE to the Ministry

The NCIE is one of a number of expert advisory councils under the Ministry of Church and Education. It does not form part of the MCE but enjoys an advisory, independent status (see appendix No.2). The NCIE pursues its activities within the framework of the Innovation Act (see p.179). In practice the activities of the NCIE have amounted to a reform conducted by the Council, initially of the primary school and subsequently, since 1968, of secondary schools. This reform work has mainly been of an administrative character. Evaluation and research have not so far played the part in the work of the NCIE which was perhaps the original intention. The Parliamentary Report No.9/1954 has this to say about the motives for the creation of the Council:

> "If we are to enjoy the benefit of experiments with new methods or forms of organisation in our school system as we should, an extensive programme should be drawn up for research, experimental activities and the compilation of results."

The description of the section for research and evaluation given immediately above is somewhat misleading with regard to the activities pursued until now, but on the other hand it is representative of the NCIE's present ambitions and intentions.

The Council's annual reports to the Ministry have offered possibilities for controlling and reviewing the activities of the NCIE. At the same time it appears obvious that the NCIE has been able to function on a very independent basis. Questions concerning the functional methods and tasks of the Council are dealt with in the following chapter. It is of the nature of experimental work that this should affect to a considerable degree the work of the Ministry's other advisory institutions. In order to facilitate co-operation with other councils concerned with the different types of schools various liaison committees have been set up, namely one between the NCIE and the Council for the Primary School/Comprehensive School, one between the NCIE and the Council for Special Education, five between the NCIE and the various councils for schools at secondary level and one between the NCIE and the Council for Teacher Training.

The liaison committees consist of members of the councils concerned and usually have an inspector or consultant from the NCIE as secretary. At committee meetings discussions are held on, among other things, the various projects included in the activities of the NCIE on behalf of various types of schools.

Another body which co-operates with the NCIE and deserves mention in this context is the Norwegian Council for the Sciences and Humanities. Following an investigation carried out jointly by the NCSH and NCIE ("The Development of Norwegian Educational Research: Norw. Utbyggingen av norsk skoleforskning", Oslo, 1968) an educational research committee was formed in 1968 and staffed with representatives of both councils.

Since 1970 this committee has functioned as the Ministry's agency for the allocation of funds to applied educational research. During the first year 1 Mkr (= 1 million Norwegian Kroner) was allocated (including 0.3 Mkr for various projects managed by the NCIE) and in 1971 the figure rose to 1.5 Mkr. The funds for educational research at the disposal of the NCIE are used mainly to pay the salaries of the research staff employed by the Council.

Economy

Every year the NCIE submits a budget proposal to the MCE to cover costs for the ensuing year. Duly revised, it is embodied in the Government's budget estimates and presented to Parliament, which makes the final decision on, among other things, the economy of the NCIE and thereby the range of its activities.

During recent years grants to the NCIE and School Experiments have been increased as follows. The actual increase is greater than appears in the table, because the budgeting procedure was changed during those years with the result that certain experimental school expenses were transferred to regular operational items.

	NCIE	School Experiments	Total
1967	1.0 Mkr	1.9 Mkr	2.9 Mkr
1968	1.1	2.2	3.3
1969	1.5	3.5	5.0
1970	2.0	5.5	7.5
1971	3.0	13.0	16.0

The increase thus applies especially to the sub-item 'School Experiments'. This is connected in the first place with the experimental activities in secondary schools which has been expanding since 1968-69.

Here the State reimburses the NCIE's budget for the increase in running expenses of about 30 per cent per pupil incurred by the experimental activity. The amount is paid out to the schools in the form of an additional allowance over and above the regular government grant. The increased expenditure is mainly based on three factors:

1) New posts are established at schools for advisers, liaison teachers and "experiment inspectors".

2) As a result of the free choice of subjects permitted in the gymnasium, the instructional units are often smaller than the ordinary classes.

3) The regular teaching duties of teachers at the gymnasium are reduced during the experimental period from 22 to 17 hours per week. Two of the five hours thus reduced are devoted to teachers' meetings. The NCIE's expenses are increased in proportion to the number of classes.

One complication is caused by the fact that a large part of the increase is made up purely of salary costs, which are regulated by agreement between the NCE and the teachers' professional organisations during the budget period. The automatic increase in the budget items otherwise applied to the regulation of salaries do not apply in the case of the grant "School Experiments". In the Report for 1970 (p. 155) the NCIE comment on this as follows.

> "The regulations concerning the grants, ..., also prevent the raising of the grant for the NCIE in connection with general increases in teachers' salaries. General increases in teachers' salaries lead automatically to an increase in salaries for teachers engaged in experiment. The NCIE has now found itself in a situation where it has to pay an increase in salaries, but cannot obtain the necessary funds to cover the extra payments, such as are provided for elsewhere in the school system, on account of the procedure laid down for budgeting. This is an impossible situation which cannot be maintained in 1971."

> "In the present situation school experiment is at a disadvantage as a result of current budgeting procedure. From the financial point of view it is simpler to bring about an expansion of the existing school system than to conduct experiment within the same school system or to conduct experiments on new forms of school. At a time when society is being so rapidly transformed and when great changes are also taking place in the educational system, this is an entirely unsatisfactory way of carrying out the task of introducing innovations in the school system."

In this somewhat sharp tone the NCIE requests in the budget proposal for 1972, as in their previous proposals for 1970 and 1971, that costs of teachers' salaries in connection with experiments should be included as part of the running costs in the regular school budget and not in the special budget for experimental activities. An answer from the Ministry in March 1971 indicated that changes could hardly be expected during 1971. However, a new budgeting procedure has since been devised, which in future will raise the NCIE grant automatically when teachers' salaries are regulated.

Another cost which the NCIE does not consider as belonging to the budget for experiments is that of the work of development carried through under the auspices of the various councils for different types of school and outside the scope of the Innovation Act. The NCIE is of the opinion that every council should have its own budget for both normal development work as well as for implementation following successful initial experiments carried out under the auspices of NCIE. In the opinion of the Council an intolerable situation has arisen, when both its possibilities for innovation, planning and evaluation are limited because the funds placed at its disposal are largely tied to salary costs, which are settled by collective agreement in the schools, and also because the other councils possess no resources whatsoever to implement successful experiments. "It is of little use conducting experiments when the successful experiments are not implemented throughout the school system. In that case the experiments merely acquire a local value in the districts where they were conducted." (NCIE report for 1970, p.156).

OBJECTIVES AND TASKS

The Innovation in Education Act

The general and overriding objectives of the NCIE are stated in the Innovation Act (see p.179). As we have already seen, the Act is open to different interpretations. The most concrete expressions of the aims and tasks of the Council are the strategies it applies in its work and - to a still greater degree - the activities and projects which together define its field of operation.

The Innovation Act states concisely that the NCIE shall "serve the authorities (that is to say the Government and Parliament) with advice, initiative and supervision upon such matters as are connected with experiments in education." The creation of the NCIE is justified quite formally in terms of the need - when such experiment is well motivated from the educational point of view and in the interest of the school - to undertake experiments which are not provided for in the current rules and regulations of the school.

Here we should notice that the laws in force for the different types of school allow scope for development work carried out by individual teachers (for example, as regards teaching within a single subject). The special field of the NCIE is, therefore, in the first place the more extensive work of experiment and reform normally organised in three phases (primary phase, field phase and implementation phase) and which includes systematic follow-up and evaluation. During the implementation phase responsibility is in principle shifted from the NCIE to the council representing the particular type of school in question.

The general motivation for a special council for educational innovation is expressed in the proposal laid before Parliament which led to the creation of the NCIE. "The Ministry believes it is desirable to form a collective leadership responsible for the work of innovation in our school system. The Parliamentary Educational Committee expressed their view as follows: "In taking experimental activities into the service of the school, it should prove possible, both organisationally and educationally, to keep the school in line with developments in society."

Objectives and tasks are expressed - as noted by way of introduction - most clearly by means of the projects and activities otherwise carried out by the NCIE. An important question is therefore the way in which the planning and formulation of projects is carried out. Here we find not only scope for and need of clear directives and leadership from the Ministry and Parliament but also for close co-operation with the councils responsible for the different types of school. We consider it advisable, therefore, to examine in rather more detail the way NCIE manages its project planning.

Three phases of work on projects are briefly mentioned in sections 4 and 5 of the Innovation Act:

a) "In order to obtain authority for experimental activity, the National Council for Innovation in Education shall submit to the Ministry of Education plans for experimental instruction or shall pronounce on plans put forward by individual schools and others. This shall also apply to objectives and the qualifications such instruction may confer."

b) "Questions concerned with grants from public funds for experimental activities shall be brought up before Parliament in connection with the proposed budget for the schools or types of school in question."

c) "Reports shall be made to Parliament every year on the subject of experimental activities initiated under this law."

This arrangement of the work of the NCIE appears logical and rational. First, an account of the plans has to be submitted to higher authority as a basis for definition and decision. Thereafter - but as soon as reasonably possible - an estimate of the costs of the activity must be made, so that higher authority may place the necessary funds at the Council's disposal. And, finally, an account of the results and the development of the activity is demanded, in order to give higher authority the possibility, among other things, of reconsidering and - if necessary - of reformulating tasks and plans.

It now appears that in essential respects planning does not conform to this pattern. A collected account of plans has only made its appearance on one occasion. This was in 1969, when a three-year plan for 1969-71 was published in an appendix to the annual report for 1968. This plan, however, attracted little attention. The Ministry did not bring it up to Parliament for discussion. In the course of a Parliamentary debate on 22nd January 1971 the wish was expressed - not by members of the Government but by those of the Opposition - that a new three-year plan should be submitted to give Parliament the opportunity of expressing its views on the direction and scope of ~~the~~ experimental activities. In February 1971 the NCIE began work on a new three-year plan for 1972-74 in the hope of being able to submit it, following discussions with the other advisory councils, to the Ministry in autumn 1971 with a request for an account to be laid before Parliament, and the plan to be considered by Parliament early in 1972.

As we have seen, it has not proved possible to submit the cost estimates at the same time as the reports on planning. Instead they are sent in as annual budget requests and dealt with apparently on the basis of the previous year's costs and the possibilities of increasing or reducing the absolute amount of expenditure. It is not a question of budgeting for several years: cost accounting for a period in excess of the following year is, when it does appear, very tentative. Other relevant points, for example the potential importance of expenditure for the attainment of certain desirable social objectives, do not seem, to judge from the summary character of the budget proposals among other things, to be put forward.

The point where the planning pattern seems to have worked most successfully is in the reporting of results. Every year the NCIE describes its current project activities. In addition to submitting the report formally to the Ministry, the NCIE arranges for its publication as a printed appendix to the journal NORSK SKOLE. The interested reader, especially if he is in a position to compare the descriptions of projects in different reports, can thereby obtain a picture of the projects selected for experiment and also, which is not least important, of the results and conclusions derived from implemented projects. On the other hand no information is given about the project proposals which have been dropped from the programme.

Annual Reports

Even in the annual reports the plan as set out in the Innovation Act has proved inadequate in the sense that the reports do not reach Parliament sufficiently rapidly from the Ministry. Thus, for example, Parliament did not deal with the report for 1965 until January 1968, and the report for 1966-67 did not come up until January 1971. The reports for 1968, 1969 and 1970 are expected to be debated in Parliament in the spring of 1971. This obvious delay was commented on as follows by the Chairman of the Parliamentary Educational Committee:

> "Annual reports debated in Parliament can, as we are quite aware, be two to three years old and thus fail to give us continuous contact. The Council for Innovation in Education declare that

> "there is a danger of delay and a breach of continuity in the development of Norwegian schools if Parliament is obliged to wait so long for an opportunity to discuss the principles of educational development. The most appropriate reply to the Council's wish to introduce Parliament to a greater extent than hitherto into the discussions of plans and principles for the development of our educational system would be to ensure that Parliament has an opportunity of dealing with the annual report when it is of maximum topical interest. Furthermore, it should be possible to introduce the Council's three-year plans more fully into the picture, so that a three-year plan may be something over and above an appendix to a report on experimental activities."
> (Proceedings of the Norwegian Parliament No.245, 22nd January 1971.)

Decisions on objectives and problems for experimental activities, however, come about in other ways than action taken on the basis of the NCIE's three-year plans or annual reports. Perhaps the most important point of departure for innovation and experiment in the educational sphere is the work of investigation undertaken by state committees. A great deal of the work at present being performed by the NCIE has, for example, been based on proposals put forward by two committees concerned with the secondary schools (the Gjelsvik Committee which submitted its proposals in March 1967, and the Steen Committee, from which proposals were received in March 1967 and February 1969). The current engagement of the NCIE in this field originated, among other things, as the result of a request by the Ministry that the NCIE, together with a large number of other councils, authorities and organisations, should state its views on these committees' proposals. In a reply the NCIE disclosed a plan "whereby the proposals of the Steen Committee could be launched on an experimental basis in our present school system."

The experimental activities outlined by the NCIE in this connection commenced, with the approval of the Ministry, in 1969-70. The NCIE has been able to exercise a considerable amount of influence on the organisation of this activity, partly because the committee's proposals were couched in rather general terms or revealed as several, inconsistent alternatives, partly because the Ministry had not defined its attitude to such proposals. Compared with the Swedish procedure for reaching decisions in corresponding cases, for example, there is in Norway no governmental report on accurately defined proposals for reform which could be laid before Parliament, nor is there Parliamentary approval for the main features in the work of reform. (A report containing references and a discussion of these questions, No. 91 1969-70 dated 22nd May 1970, had not come up to Parliament for action as recently as April 1971.)

On the other hand the NCIE's possibilities of itself defining its objectives and tasks are limited, because the secondary schools, in contrast to the primary schools affected by the comprehensive school reform, do not come under the authority of the Innovation Act and NCIE but remain, even during the period of experiment, under that of the appropriate council for the type of school in question. The present situation (April 1971) is that the NCIE has been authorised by the Ministry to "administer" the work of reform, while the other school councils concerned are responsible for ensuring that the activities are conducted in accordance with the regulations hitherto in force with regard to the tasks of, for example, teachers and examinations.

In order to obtain a clear decision on the part to be played by the NCIE in the work of experiment and reform, the NCIE has proposed in its Report for 1970 that experiments in secondary schools should be limited in time and divided into several phases:

> "For experiments concerned with the reform of the senior secondary school (gymnasium), the NCIE proposes the following period: 1969-72, i.e. 4-year groups. The experiment will be entirely completed when the 4th such group passes out of the 3rd form of the gymnasium in 1975. It should be possible to effect the reform for the classes starting at the gymnasium during the period 1973-74.
>
> "Experiments based on the recommendations of the Steen Committee of 1965 should be divided into several phases: the first should be of an interim nature. A possible second phase may begin in 1973. A decision should be made in good time as to whether and how the experiments should continue. Until now the NCIE has been of the opinion that it is advisable to try out the Committee's recommendations in full (See NCIE Report for 1969, p.65). All the expert councils should express their views on a prolongation/continuation of experiments divided into several phases.

> "The NCIE is of the opinion that circumstances in connection with the administration of and responsibility for experiments in secondary schools are so ill-defined that they create an impossible situation for experiment and that this also results in confusion for experiment even in other types of schools. The NCIE wishes to stress the need for a definition of the Council's mandate and function.
>
> "The NCIE therefore petitions the Ministry of Church and Education as well as Parliament for such a definition. In the Council's opinion, the root of the matter is whether or not the Ministry and Parliament intend to invoke the Innovation in Education Act and to employ the services of the NCIE in the experiments now in progress in secondary schools. If such is their intention, may the NCIE receive the working possibilities which it seeks. If such is not their intention, the Ministry of Church and Education as well as Parliament should seriously consider the advisability of having an Innovation Act on the statute books and thereby a National Council for Innovation in Education."

STRATEGIES

The strategy which has been used most hitherto in the work of the NCIE can be characterised as **reform activities** or implementation experiments. The now nearly completed task of introducing the 9-year school in all districts of Norway is the supreme example of this strategy (Chapters 3 and 4). The current and rapidly expanding activities in connection with a new organisation, etc., of the secondary schools form the second major example of this type.

Reform Activities

This strategic concept is defined as follows in the NCIE's three-year plan (Skolen i 70-arene, Oslo 1969, p.16):

> "As a rule a reform is the result of a political decision and it is assigned an objective. Most frequently it represents a programme dedicated to extensive goals. No special degree of control is expected of the attainable results beyond that it is proved practicable to put the reform into effect. Different alternatives are seldom tried out. The task is to establish a new system to suit those who have political power in a country.

"But such a reform may often lead to experiments aimed at discovering how different methods of implementation work out."

As we have seen in the preceding chapter, the involvement of the NCIE and other councils in reforming experiments is one of the questions on which opinions have differed from time to time. The introduction of the 9-year school was a task for the NCIE ever since its formation in 1955. The expert advisory council for the primary school was founded in 1959, but the NCIE was nevertheless responsible for experiment even during the implementation phase and even up to the end of the 1960s, that is to say throughout an experimental period lasting 15 years. This must be regarded as a somewhat lengthy project work period for a body having innovation as its principal task. In the 9-year school the NCIE today is responsible for only a few very limited experiments on working methods, the organisation of work, teaching materials, etc. (for more information on this type of strategy, see below). The procedure for these experiments is that once the NCIE has completed the primary phase, they are taken over by the primary school council.

The reform of the secondary schools has now reached an introductory stage corresponding to that for the 9-year schools during the 1950s. The strategy of change seems by and large to be the same. Even the general aim of the reform of these schools is in full agreement. As is apparent from the following quotation, it is basically a question of an extension of the principles of the comprehensive school to a higher age group:

"1. Admission to three years'further schooling should be available to all.

2. A changeover from one form of education to another should be as simple as possible.

3. Permission shall be granted to those wishing to combine general and vocational training.

4. Supplementary instruction shall be available for all.

5. Instruction shall be adapted to suit the circumstances of the individual." (Parliamentary Report No. 91, 1969-70, p. 40, on the reform of the secondary school.)

What the NCIE is now trying to avoid in respect of secondary schools is involvement in the same long drawn out and administratively cumbersome work of reform encountered in the case of the

9-year school. Clear tendencies in this direction have made themselves felt, as mentioned in the previous section, an example being the way that certain of the running costs of the school (e.g. teachers' salaries) are debited to the budget of the NCIE. It would appear that in this field also the NCIE is prevented from functioning in the spirit of the Innovation Act but is instead expected to "administer" experiments in schools which continue to be under the authority of other councils. The costs of implementation continue to be paid via NCIE's budget instead of permission being granted to the secondary schools to use their own resources for the purpose.

The strategy that the NCIE would wish to employ for secondary schools would consist of the entire work of reform, including primary, field and implementation experiments, with a well structured design of all the aspects of the reform, being completed within a period of 10 years (Forsok i skolen 1969, p.65). Thus the tendency is for the NCIE to wish to increase the tempo of the reform work while the other councils (e.g. the Council for Secondary Education) prefer a slower rate of change.

Behind this, however, lie basic differences in points of view and evaluation. The Council for Secondary Education are doubtful as to whether the prescribed aims are even desirable in themselves or possible of attainment. The Secondary School Council consider, for example, that insuperable difficulties will arise if, as is proposed, differentiation is postponed until after the first year at the gymnasium. "It is impossible to set up a common aim for pupils with entirely different aptitudes and dispositions" (Parliamentary Report No. 91 1969-70, p.50). On these and other problems of the same kind the NCIE has a point of view which is somewhat different in principle. The NCIE approves and regards as natural the attempts of public authorities to suggest new aims for educational activities, taking the view that experiments on reform and implementation is a suitable strategy for putting into practice decisions based on educational political principles.

The question is, however, whether there is not a contradiction between the readiness of the NCIE to tackle and rapidly carry out great and complicated reform experiments and its wish, just as clearly expressed, to make research and evaluation a major feature of the Council's activity. The object of research and evaluation is, among other things, to increase the basic data for decision-making. The gathering and analysing of this more extensive basis for decision-making can normally be expected to exercise a delaying rather than an accelerating influence on the time schedules of the reforms. Another point of conflict can affect the possibilities of combining a factual involvement in the implementation of reforms with a cool objectivity in the examination and analysis of the results of the activity. An institution concerned with reforming experiments and implementation as its principal strategy will undoubtedly run into difficulties when it wishes to combine the above strategy with an ever greater investment in research and evaluation. We shall revert to this problem later in this report.

Experiments in Methods and Organisation

The work of reform in the comprehensive school has, as said by way of introduction to this chapter, given rise to a number of more limited experimental projects on various problems in the organisation and methods of teaching. The demands for a differentiation or individualisation of teaching is the commonest releasing factor. In Norway as in other countries these demands have stimulated extensive work on new teaching methods, work organisation, teaching aids, the planning of new buildings, etc. This work is often carried out on a project basis. The greater part of the projects of the NCIE (which , as has been previously pointed out, is not the same as the greater part of the work performed by the NCIE), assumes in fact this character. One example of this in the comprehensive school is a project on the teaching of Norwegian. Other examples are individualised mathematics teaching, rules of thumb for dividing classes, district centres for special education, the alternative musical syllabus, etc. Most of the projects assume the nature of practical school experiments, in which a consultant and a reference group from the schools concerned provide the leadership for the project and in which questionnaires completed by teachers and pupils, together with reports and evaluations from the teachers in question, furnish a basis for decisions on the subsequent processing and distribution of the results of the projects. In some cases, projects in the field of mathematics - for example - assistance is forthcoming in the form of expertise in educational psychology (financed by grants from the school research committee); there is systematic planning of data collection, observation, analysis and reporting. In this field and also in the case of certain other projects co-operation is maintained with producers of teaching materials, who also make some contributions, as well as with research and development institutes in the neighbouring country of Sweden.

Research and Evaluation

A third principal strategy is educational research, at least if note is taken of expressed intentions and ambitions. As early as the beginnings of the NCIE it was announced that "research should be governed by the educational administration in close contact with the Norwegian Research Council for the Sciences and Humanities and other research institutions in the University of Oslo and the Norwegian College of Education. A special council should be established for experimental activities. The council should represent expertise on educational matters and pedagogical research on an advanced level." (Parliamentary Report No. 9, 1954, p.99).

As a rule - and ever since the start - the NCIE has had a leading representative of educational research among its members. Nevertheless it must be observed that research work within the sphere of, or in direct connection with, the activities of the NCIE has hitherto been of limited extent. It is natural to interpret this in terms of the conflict we mentioned earlier between reform and research as forms of activity. Educational research, when gradually built up as an empirical discipline, has drawn its examples from, among other sources, scientific research with experimental and control groups. Educational research in these forms is taking place in Norway and internationally it is on a high level. However, the demands made on educational research in recent years go still further. And here the model has been the research and development work of the technical sector. This leads to demands for the co-ordination of educational research with educational administration. It also leads to demands for the co-ordination of educational research with the construction and production of teaching materials. It leads to the planning, implementation and evaluation of research, in which policy-makers, administrators, teachers, producers of teaching materials all become necessary collaborators. It leads to systematic solutions for practical problems. It leads to projects directed towards the solution of problems by teams of research workers rather than to isolated specialist studies aiming at promotion within the academic sphere. (That project research can and should be combined with research intended for academic advancement is one of the experiences gained in Sweden.)

It must be noted that educational research in Norway has acquired this more recent approach only to a limited extent. In this connection it may also be said that the research resources in Norway have so far only to a limited degree been linked up with the work of the NCIE. Sporadic research work has often been undertaken, but not until very recently has this come about as planned and commissioned by the NCIE.

It is true that such commissioned research requires more funds than those at the disposal of the NCIE. The educational research institutes are nevertheless comparatively well developed in Norway. Thus it is not primarily a shortage of resources which has prevented a linking up of research and experimental work but rather the organisation and use of these resources. The NCIE has certainly underestimated on occasion the importance of a firm basis of psychological knowledge for educational activities. It is for such reasons rather than on account of limited economic resources that research on teaching processes and education has long been condemned to an unnecessarily limited existence, a state of affairs common to Norway and the majority of other countries.

The new possibility implicit in the new grant for educational research (see page 206) has made it possible for the NCIE in the first place to launch research projects in the teaching of mathematics and music and also in connection with the reform work in the secondary schools. The latter activity is dealt with later on in this report.

This educational research now commencing under the auspices of the NCIE should - if it is intended gradually to increase its importance in the activities of the NCIE - be organised in such a way as to lead to an increasingly reliable and relevant continuous evaluation of all the more important major and minor NCIE projects. Also - and not least important - it should forge contacts with and work in collaboration with the research institutes at universities and other schools of higher education. These two tasks make it natural for the research section to acquire an established standing, both with regard to its staff and organisation, within the NCIE. Incidentally this requirement can possibly come into conflict with the recently expressed policy of having only temporarily employed staff on the NCIE secretariat (see page 202). If the NCIE intends through its secretariat to take on research work in the strict sense, which is open to discussion, it will also be necessary for it to recruit staff with the required academic qualifications to undertake such research.

An extensive and profitable contact as well as co-operation between an institution for planning and innovation such as the NCIE and research institutions at universities necessitates changes in both partners. The client-employer must obtain - in the way suggested above - a suitable capacity for placing orders. And the research institutions must increase their preparedness and ability to develop still further a relevant scientific methodology and theory for the educational function. The latter requires, among other things, increased co-operation across the traditional frontiers of subjects and institutions in the planning and carrying out of research projects.

Information

The fourth of the principal strategies of the NCIE is information. Activities of this kind are relatively new. Not until August 1968 were special personnel recruited for information duties.

Since the beginning of 1970 the NCIE has employed a full-time director of information. In accordance with the development of this section, the information service operates five main channels: a magazine, an information leaflet, conferences for journalists, the distribution of articles and announcements to school newspapers and the Press and, finally, the publication of books. The aim is to provide information about the activities of the NCIE to the following groups, among others:

1) teachers,
2) research workers in the educational field,
3) pupils and parents, and
4) politicians, authorities, organisations.

The magazine FØRSØKSNYTT is published in 8 issues annually and it contains articles dealing with the entire field, summaries of investigations and reports, announcements, etc. During the first year the edition was 2,000 (1970) and the demand is expected to increase in future. INFORMATION OM FORSØKSARBEID is a stencilled series of reports. Among other things it contains results from experimental projects as and when they come in. Between January and April 1971, for example, six such reports were published. The journalist conferences are intended to build up personal contact with those journalists who specialise in educational matters. From 1971 onwards at least two such conferences are expected to take place annually. At the beginning of 1970 a conference of this kind received the following comment in Forsøk i skolen, 1970 (p.154): "The conference led to improved contact between the NCIE and the Press. In the months that followed the newspapers contained a good deal of material about educational innovation, and once the members of the Press came into personal contact with those familiar with details of the experimental activities being carried out in various types of schools these articles acquired a very considerable information value."

With regard to the importance of the information service and the amount of material produced by the NCIE, there would seem to be no alternative to increasing the number of staff in order to be able to improve still further the present information services.

ACTIVITIES

A summary of the activities of the NCIE is given in every annual report. The various projects are arranged there according to types of schools. A current list of major projects is given at the end of this report (Appendix 3). The focal point of interest in these activities is made apparent in the following summary of the space devoted in the annual reports to various types of school (= number of pages of text in the reports) and the number of projects (more specified here than in Appendix 3) reported during the last three years.

Type of School	Number of Projects			Number of Pages in Annual Reports		
	1968	1969	1970	1968	1969	1970
9-year school + nursery school	51	31	27	45	25	41
Special instruction	5	5	4	2	2	2
Secondary schools	10	7	5	15	32	57
Teacher training colleges	27	27	36	4	20	18
Experiments in various types of schools	6	5	7	7	6	6

The greatest change between 1968 and 1970, as may be seen above, is the increased activity in secondary schools. The reform work is being carried out at present in a limited number of large and still expanding projects. The number of projects is naturally not in itself a reliable indication of the volume of work being carried out by the NCIE, since the projects can vary greatly in size. The distribution of staff and economic resources is more revealing. According to an estimate made by the NCIE secretariat, in 1971 about 60 per cent of the total budget of 16 million kroner is being devoted to experiments in secondary schools.

The 9-Year School

All the projects concerned with the 9-year school now belong to the second type of strategy, experiments on methods and organisation (cf. pp.217, ff). Most of the projects have the character of practical educational experiment, but in a couple of cases research and evaluation are included in the project work.

One example of projects of this type is the IMU-project. The intention is to try out a self-instructional and individualised form of teaching in mathematics, based on a methods and materials system, which has been adapted for use in Norway from a Swedish model. In the experiments, which apply to the 7th, 8th and 9th school years, the reactions of teachers and pupils and the knowledge and social development of pupils are registered, among other things. Method and organisation are subsequently modified on the basis of the data collected and the conclusions reached. The number of schools participating in the project has rapidly increased from four in 1968-69 to 57 in 1970-71. The project is directed by a project committee with a full-time project leader, a part-time investigator and 3-4 district consultants. These last act as advisers to teachers in the various schools concerned.

Special Instruction

In this field there are only a few projects, some of which are, however, fairly extensive. One of these is concerned with the setting up of district centres for special education. In 1969-70 and 1970-71 four such centres have been in operation and two more are expected to start with effect from the autumn of 1971. A project committee with a consultant from the NCIE as secretary and project leader has been responsible since 1970 for directing this work. A primary aim is to improve the integration of maladjusted children of various types into the school and community. The nature of this activity is summed up as follows:

"1) The teaching of maladjusted children in small groups under the supervision of personnel from the centres. This instruction is given in ordinary schools.

2) Information for the parents of maladjusted children.

3) The participation of consultants in the planning of an improved organisation for standard special instruction in ordinary schools.

4) Meetings and courses for persons directly or indirectly involved in working with maladjusted children, teachers, nursery staff, etc.

5) The initiative has been taken to establish co-operation on a broad interdisciplinary basis between medical, psychological and special education institutions with a view to smooth co-ordination of diagnoses and action.

6) The client-centred diagnostics and advice constitute an important form of work at all centres. In addition to the special needs of such advisory services, this activity is ultimately decisive in the registration of problems as well as the planning and organisation of remedial measures.

7) Active steps have been taken to develop a contact network with a view to the registration and treatment of maladjusted children of pre-school age. "Key people" in this field are district medical officers, district nurses, the staff of maternal and child welfare centres and children's day nurseries. The prophylactic and early treatment of maladjusted children is one of the principal aims of the centres. This activity leads to greater possibilities of treating attitudes, co-ordination and planning.

8) The centres maintain an open attitude towards all institutions and professional groups concerned with these problems in the widest sense. This is expressed in a desire to hold seminars and courses as well as to develop contacts with other institutions. Such activity is a condition for staff at the centres to be able to develop and improve their professional qualifications and understanding. This development of contacts is also a condition for the encouragement of the staff and the heightening of their powers of resistance in the professional isolation which is often characteristic of this work." ("De funktionshemmede og samfunnet", "The Maladjusted and Society" NCIE Series No.22, Oslo, 1971, pp.22-23).

Secondary Schools

The greater part of the activities of the NCIE is thus at present concentrated on secondary schools. In all essentials this work has the character of reform activities (see page 214) and consists at present of two major experimental projects. The experiment on the reform of the gymnasium or senior secondary school affects in 1970-71 57 classes in eight schools. The experiment on the two-year basic course with a combination of theoretical and practical teaching affects in 1970-71 21 classes in 12 different school units. The intention is that the latter group, now mainly to be found in vocational schools, should by their two-year combined basic course be qualified to go over to the second year course of the gymnasium. This possibility of switching over is one of several desirable reforms intended to reduce differences and disparities between general and vocational schooling and to make different forms of education for the age groups concerned (16-19) socially equal.

The preconditions for these experimental projects in secondary schools have been dealt with in previous chapters. Here we shall mention briefly some of the main features of this work of reform and some of the problems and difficulties that arise in this connection.

The reform work aims at renewing objectives and content as well as co-ordinating these between the various types of schools. This necessitates drawing up new curricula and syllabuses. Here we find a demand for planning and preparatory work not only in respect of content but also of the organisation of work and the forms of work, for which sufficient resources have not hitherto been available. Specialists on various subjects working in syndicates have drawn up plans for courses in which it has been necessary, among other things, to take account of the different material in general subjects in relation to various vocational subjects. This task is complicated, because integration in one vocational stream is often difficult to combine with integration in another.

The formulation of working organisation and forms of work requires both a rich variation of teaching material and also that the planning group has a good idea of what materials are available. It is in this respect that the reformers have so far encountered perhaps their greatest difficulties: the advice and suggestions as well as the teaching materials that the NCIE has been able to place at the disposal of the schools concerned have not so far proved sufficient to satisfy the demand.

The resources that the experimental schools have received instead have taken the form of reinforcement of staff. Thus every school has an experiment leader who assists the headmaster in experimental work, an educational consultant and a contact teacher who work mainly with pupils and to some extent with parents. It is in the first place these officials who, together with NCIE'S consultants and the subject committees, make it possible for experimental work to be performed in the schools. The training of teachers for the above mentioned posts, as well as the training of the regular teachers in the experimental schools, has so far proved inadequate. In 1969 immediately before the beginning of the school year, courses of 2-3 days' duration were arranged for teachers concerned and 2 more days of conferences were arranged at every school. In 1970 the NCIE lacked funds for even such a limited work of preparation. The secondary schools singled out for reform received, when they began, no other introduction to the scheme than what could be given when the NCIE's consultants paid a couple of brief visits to the schools.

The follow-up and evaluation now being carried out on the reformed gymnasium and the 2-year basic course are concerned, first and foremost, with four fields: the background of the pupils and their motivation, the pupils' choices, the volume of work and differentiation. The data being collected are intended to form the basis of a charting and evaluation of the teaching organisation and the structure of the school. With regard to differentiation, for example, we may note that the investigation deals with, among other things, the pupils' and teachers' experiences of a first undifferentiated year at the gymnasium.

It should also be noted that the research work hitherto carried out has been of a preliminary character. The research consultant thus states, after one year's work, that "unless there is a radical change in the conditions of the research section, it will prove very difficult to carry out a satisfactory systematic follow-up and evaluation of experimental work in years to come. In connection with experimental activities in secondary schools there is a large number of research tasks which should have been carried out and problems requiring solutions, but which the NCIE, under existing conditions, has no power to carry out because of insufficient authority and resources for educational research." (Arne Solstad, Memorandum, June 1970).

Teacher Training Colleges

The work of the NCIE in the teacher training college has hitherto been mainly like locally initiated and locally run practical school experiments. In the report for 1970 the projects are said to belong to four main groups, as follows:

1) Structural experiments with tests of various models regarding the disposition of subjects, timeplans, levels, forms of study, etc.,

2) 1-year's further training, in which various teacher training colleges test different models for the extension of the 2-year standard teacher training in different subjects,

3) experiments on the curriculum or methods contributing to renewal in various subjects in standard teacher training, and

4) experiments in organisational conditions; two types of project in progress: experiments with various types of representation system, and experiments in "voluntary attendance, concentrated syllabus and compulsory examination".

Experiments Affecting Several Types of Schools

Experiments in this category are very varied. Mathematics projects are concerned with the testing of new content in the teaching of mathematics in the comprehensive school and the gymnasium. Another project involves the development of computer programmes for drawing up timetables. These activities have proved successful: in 1967-70 they affected about 4,000 school classes in different types of schools. Another project is devoted to the introduction of the 5-day school week, which occurred in 1970-71 in some 80 communities.

Yet another project deals with co-operation at school and has included the development of a training programme intended to provide increased knowledge of the school as an organisation as well as to train teachers and pupils to co-operate and increase their influence in the school community. This project may be said to have its point of departure in the assumption that the effects of the school on the pupils are less dependent on the content of teaching than on the forms in which teaching is offered, e.g. on how the pupils experience allocation of rolesand forms of co-operation between teachers and pupils. Among other things the project has resulted in a course textbook (Arne Ebeltoft: Nye samarbeidsformer i skolen, Oslo 1971), and some working material from the project published by the NCIE.

This training material is now being distributed to various parts of the country and various types of schools. The purpose of the course is to increase awareness of how the forms of co-operation at school differ from or are similar to the forms of co-operation prevailing in the surrounding society.

Part III

SUMMARY, COMMENTS

TASKS OF THE NCIE

In the sections immediately preceding we have described in some detail the aims, strategies and activities of the NCIE. The account was for the most part factual but contained some comments and analytical features. This final part of our report is devoted to some critical analyses and summary comments on the tasks of the NCIE and its standing as an agency of innovation. Finally, we shall offer some comments on the future tasks and status of the NCIE.

The Act of 1954

Innovation in the Norwegian educational system is closely associated with the concept of experiment. The Norwegian word FORSØK has no satisfactory equivalent in English. Etymologically FORSØK (German Versuch) corresponds most nearly to the English words 'trial' or 'try-out'. The best translation is possibly 'try-out activity'. In the field of education, however, the most convenient translation is probably 'experiment', but it is important to bear in mind that the word experiment in this sense does not always mean a scientifically controlled experiment.

In order to understand the activities of the NCIE it is necessary to attempt, first of all, to define the meaning of the word forsøk and thereby also the meanings of the words forsøkslov and forsøksrad. To do so we must go back to the treatment of the question in Parliament in 1954. What was it Parliament decided upon in 1954? What did Parliament mean by forsøk?

These questions are not easily answered. On the contrary, a perusal of the documents from the Co-ordination Committee, the Ministry of Church and Education and Parliament reveals that the word forsøk has been interpreted in different ways. The somewhat lame debate that took place when the Innovation Act and the Council came into being does not give a clear answer. We have also previously had occasion to speak of the "twofold" character of the concept of *forsøk*.

This twofold character (in actual fact it was probably susceptible to several interpretations) can be traced back to different basic political ideas about the role of the school and education in society. The lines dividing these basic ideas did not altogether coincide with the boundaries between the political parties. The Joint Programme of 1945 proved that it could lead in at least two directions. During the 1940s the majority of the leading politicians in the Labour Party, including those responsible for educational affairs, appeared to believe that the existing schools, that is to say the primary school, the lower secondary school and the gymnasium, should be preserved and co-ordinated. Later on a group in the party came to the conclusion that real co-ordination with a democratic educational programme was not possible with the retention of the existing types of school. It was this new view which finally triumphed. But this did not become clear until later on.

The new view appears to have had its origin within the Labour Party. It failed to win favour on the Co-ordination Committee appointed by the Labour Government but was put forward there as a note of dissent. It did, however, seem to have enjoyed the support of leading politicians of the party in power. It is evident that these politicians regarded the Co-ordination Committee as played out by the time its members reached their conclusions.

This attitude found expression in the Parliamentary Report No.9 of 1954, "On Measures for the Improvement of the Educational System". The Bill was ready as early as 1953 but because of external circumstances (a delay in the appointment of the head of the Ministry) it was held up until 1954. This bill is the basic document for the Innovation Act and the NCIE as well as for all the reforms that followed.

As already shown above (pages 177-178), the Labour Government was not alone in pressing for the idea of experiment. In 1952 the Norwegian Secondary School Teachers Association put forward their own proposal for experimental activities. This, however, limited the experiments to the Upper School. The Government considered this proposal much too restrictive in scope, since in experimental activities it saw a means of reorganising the educational system in its entirety, comprising both lower and upper schools as well as both general and special education. It also cited the findings, promulgated in 1946, of an examination co-ordination committee set up in 1938, recommending that experiments should be held on new forms of examination. On the basis of this proposal and the Parliamentary statement of 1954 the Government raised the question of educational experiment in the broad sense. In collaboration with the Norwegian Research Council for the Sciences and Humanities a committee was set up to investigate the possibilities. This investigation proved time-consuming and had not been concluded when the Government in due course put forward its own Innovation in Education Bill.

The Co-ordination Committee had emphasized that the Norwegian educational reforms should be based on Norwegian school traditions and take account of specifically Norwegian conditions.

The Ministry admittedly agreed with this recommendation but went further: "In the view of the Ministry, it is important at this stage to bring about a thorough investigation on a free basis of the theoretical and practical problems arising in connection with such an objective for the development of the school system."

The Ministry thus backed the minority on the Co-ordination Committee (dissentient Heli), making it clear that the Ministry was prepared to go further than the recommendations proposed by the majority. This standpoint was of vital importance. It was decisive for the status and tasks of the NCIE. Experiment was placed on an equal footing with the work of reform.

This does not mean, however, that the Ministry regarded experiment solely as an instrument of educational policy, a means of introducing a new school. The Ministry accepted the concept of "scientific review and systematic experiment" but declared that, parallel to this, "the theoretical and practical problems arising in connection with an extension of school attendance should be officially investigated." Experience has also clearly indicated that experiment has been almost entirely dominated by the work of reform. Only during the last few years and then only to a limited extent has experimental activity consisted of controlled unconditional experiments.

On repeated occasions, both in 1954 and subsequently, the Ministry also referred to experiences gained abroad, above all in Sweden, where a decision in principle had been reached in 1950 to introduce a 9-year school and to commence this task by organising an extensive experimental programme. The Ministry also backed up their case by citing the words of the dissentient, Heli, to the effect that demands for a new school system in principle constituted a demand for social justice, to ensure that the entire youth of Norway should receive a general education up to the age of 16-17.

Two Interpretations of the Concept of Experiment

That experiments would be concerned with changes in school organisation was further emphasized by the Ministry's proposal for combined leadership of all experimental activities in the schools. In this way the idea of limiting the experiments to examinations in the upper school only was eliminated. At this stage it also appeared less important continuously to collect and evaluate experiences before proceeding further to more and more schools.

There can be little doubt that the Ministry interpreted the concept of experiment in a broader sense than had the Co-ordination Committee. Parliament supported the Ministry's proposal.

It became clear subsequently that the Government had found in the Innovation Act and the NCIE a useful means of realising their policy. To judge from the debates that were held later on about the NCIE and its experimental activities, it seems that the Members of Parliament were not unanimous on what they had decided. We have already mentioned the twofold character of the decision made in 1954 and in the content of the concept forsøk. (The debate in Norway otherwise constituted a striking parallel to a somewhat earlier debate in the Swedish Parliament as to what the Swedish decision in principle in 1950 had really meant: a decision in favour of a new school or merely a decision to carry out experiments on a new school?)

The ambiguity in the concept of experimental activity has been throughout the period and still is of significance for the planning of NCIE's strategies and activities. In every discussion on the allocation of priorities within the NCIE [illegible] double aim makes itself felt: research-based experiment or im[illegible]tion of an educational - political programme (or a combination o[illegible]n)?

Even in the selection of members for the Council, as in the selection of officials for staff appointments within, this twofold character becomes apparent in the weighing of the required qualifications. The officials of the NCIE maintain throughout their ambitions to conduct unconditional experiments in accordance with controlled methods. It is, however, evident that until now they have been almost entirely employed on the introduction of the new school in general; work in which experiments in the stricter sense play a subordinate part, in so far as they occur at all. In this connection it should be noted that the NCIE has not been awarded grants worth mentioning for such controlled experiments over and above the costs of the staff directly associated with the NCIE-secretariat. Not until very recently has the NCIE, by the special grants for school research, obtained the means and the possibilities for employing outside institutions for controlled research and development work. Since 1968 the funds granted to the NCIE have been divided between two items, one for the NCIE itself and one for school experiment. Even the latter item is devoted mainly to financing the regular running of the "new" schools and not to controlled experiments.

That *forsøk*, or experiment, should for the most part mean the introduction of a new school into the local communities rather than experiment on the possibility of introducing a new school is also apparent from the fact that the NCIE - at least as far as its activities until the mid-60s are concerned - neither requested nor received funds for the purpose. It was considered fitting that the costs should be met by the local authorities concerned (with regular state grants to the school system). Essentially this has made the experiments into a series of actions. The marked desire of the local authorities to participate in the experiments, that is to say to start the "new" school, was regarded in this earlier phase as evaluation enough.

Here the key question is what Parliament means by the word *forsøk*. Sooner or later the dual aims of the activities must be examined in greater detail by Parliament itself. The first major settlement was reached in the debate on differentiation in 1961. Until then Parliament had gradually become aware that the Ministry and NCIE were making a deliberate effort at educational reform in their *forsøk*. The reaction to this came in the form of certain attacks on the NCIE as an altogether too powerful body. The NCIE should carry out experiments, it was said, and leave the political questions (in this case the problem of differentiation) to Parliament.

When it came to settling the details, Parliament was unable as a rule to give any clear instructions as to how the activities should be run. Time and again Parliament became enmeshed in a debate on the status and scope of instruction in Divinity and fairly detailed decisions were made on this subject. In the larger matter of the educational structure as a whole the usual directive was that the experiments should continue. It was against this background that the NCIE and the MCE created the new school system. Parliament provided the general framework and undertook the final inspection. This statement might be thought to reduce the part played by Parliament in pressing for school reforms and innovations. As the supreme political authority, Parliament was regarded throughout the period as responsible for making the final decisions. Experiments have, however, been debated somewhat sporadically in Parliament, as regards both scope and content. Parliament has taken a greater interest in the questions of reform than in the experiments themselves. In the problems of differentiation, qualifications, common evaluation and thinly inhabited rural districts, the Parliamentary debates provided a high degree of guidance. Finding the concrete solutions has, naturally enough, been the task of the MCE and NCIE.

The Qualifications of Various Bodies to Carry out Experiments

The interpretation of forsøk is also decisive for drawing the boundaries of the activities and the competence of the NCIE. The departmental school sector councils collateral to the NCIE are also authorised to conduct experiments. In accordance with the law on the upper school, the Council for the Gymnasium can carry out experiments within the limits of its own field of activities. Corresponding regulations for th[illegible]rehensive (primary) school were included in the Comprehensive [illegible]ol Act of 1969. The disputes which have sometimes arisen between [illegible]e NCIE and the Council for the Gymnasium on experimental activity have been concerned with the question of where the competence of one council ends and that of the other council begins. The experiments carried out by the Council for the Gymnasium have mainly been concerned with subject content and forms of examinations.

The NCIE differs from the other councils subordinate to the Ministry in three respects:

1) The NCIE is the only council which can perform experiments irrespective of type of school and stage. As such the NCIE also performs experiments simultaneously applicable to several types of school.

2) The members and officials of the NCIE are specially qualified in matters of educational experiment. On a secondary level the NCIE also uses qualified experts on problems of administration and subjects taught.

3) The activity of the NCIE is based on permission from the MCE to deviate from current regulations in stated cases. Decisions under this heading may even include special allocations of funds for carrying out experiments.

Does the NCIE function in accordance with these principles? Obviously the answer is in the affirmative as regards point 1. The NCIE has a task of co-ordination and leadership which would otherwise fall to the MCE. In the main these tasks have turned out to be concerned with external organisational problems such as school buildings, local and regional planning.

The verdict is less certain in the case of point 2. In its members as well as in its officials the NCIE commands both organisational and educational expertise. The question is whether they are equal to its tasks. As long as the experiments are concerned with the initiation and administration of experiments of a reforming character, this expertise is probably more than adequate. But if, as indicated as early as the decision of 1954, the experimental activity is to include scientific experiments with planning, follow-up and evaluation, the NCIE is insufficiently equipped. We shall revert to this question later on.

Point 3 states that the NCIE can work only according to the Innovation Act. Here the responsibilities clearly lie with the Government. One question which does not appear to have been solved is when an experiment of this kind can be regarded as so conclusive that only the implementation phase remains. If a line can be drawn between what the NCIE calls the field phase and the implementation phase, so that the experiment can thereby be handed over to councils other than the NCIE, this will necessitate the NCIE's being able, by means of its actions, to convince both the council for the type of school in question as well as the public that the experiment really has had useful results. This may require considerably more thorough preparatory work than the experiments concerned with the commencement of reforms pursued hitherto.

The occasionally uncertain relations with other advisory bodies have led to the formation of special liaison committees containing representatives of the collaborating councils. As organs of mutual information these liaison committees are probably of great importance. It is open to question, however, whether they can guarantee in the long run sufficient co-ordination of activities. This raises the question of the linking up - inside or outside the MCE - of the various councils into a more unified and co-ordinated central management for the educational system.

It is likely that a concentration of all experimental activities in the NCIE would prove a poor working policy. To take away the function of development from the councils of the gymnasium and the comprehensive school would in the end deprive them of meaningful tasks.

Problems of routine and management in the school of today are spheres of responsibility too narrow for advisory bodies on a national level.

Has the NCIE Accomplished its Objectives?

This question is as natural as it is difficult to answer. We have already observed that objectives can be interpreted and implemented in various ways. Irrespective as to whether the results may be said to correspond to the objectives the following factual circumstances can be stated.

1) During the 17 years the NCIE has been in operation, great and radical innovations have taken place in the educational system in Norway. Compulsory attendance at school has been extended from 7 to 9 years. Two Acts of Parliament have established this: that of 1959 which made experiment on the 9-year school possible, and the Act of 1969 for the 9-year comprehensive school.

2) The last-named Act comes into effect in 1971. By School Year 1973-74 it is calculated that the 9-year school will be universal in Norway. This means at the same time that the independent types of schools known as the junior grammar school and the lower secondary school will have disappeared.

3) The 9-year school has been organised entirely in accordance with the principle of the comprehensive school, meaning that the various possibilities of studies offered by school are to be found within one and the same school.

4) The level for the organisational streaming of the pupils has risen. The course of instruction common to all pupils has been extended from 7 to 9 years. This took place in two stages: in 1955-60 a streamed 2-year continuation school was added to the 7 common primary school years; after 1960 the streaming was dropped for the two final years, when the courses consisted of a group of main subjects common to all plus a group of subjects to be chosen by pupils.

5) The choice of elective subjects is, in accordance with a Parliamentary resolution in 1961 (subsequently embodied in the Comprehensive School Act of 1969), to be left free for pupils and parents to make. The school cannot prevent a pupil from studying the subject or subjects of his choice.

6) Work on the syllabus has been continuously in progress since 1955. A complete syllabus for the 9-year school was introduced in 1960. A standards committee, appointed in 1967, has put forward proposals for a more definitive syllabus for the comprehensive school.

7) The secondary schools underwent a powerful expansion during the 1960s. More than three-quarters of the pupils from the compulsory school now proceed to the gymnasium or parallel types of school.

8) Secondary school experiment has now reached impressive proportions. Since 1969-70 testing has proceeded of a gymnasium model based on (a) a core of compulsory subjects, (b) specialisation in one of three streams (modern studies, social studies, linguistic and humanistic studies) and (c) a free choice of subjects.

9) The local and regional administration of the school system has been entirely reconstructed into a uniform system for the whole of Norway. The local communities (school districts) have been joined together into economically sound units for educational purposes. When this has proved impracticable, educational co-operation has been assured by means of agreements between the local authorities concerned.

These 9 points are limited mainly to organisational innovations. Obviously the list is far from complete. These innovations in particular are, however, worth noting, since they belong to a sphere in which almost every country is making considerable efforts. Norway's great successes in this field are quite obvious. The extension of compulsory school, the raising of the differentiation level and the expansion of secondary education to meet the requirements of still more pupils are matters on which all the nations of Western Europe are working intensively. Norway, like her neighbour to the east, Sweden, has progressed further than other Western European countries. The percentage of pupils now undergoing schooling up to the age of 18 is now as high in Norway as in Japan, Sweden, USA, Canada and the German Democratic Republic (countries which top the list, according to available statistics).

A question which now arises is to what extent can this widespread and heavy work of innovation have been based on evaluated experiment. Here we should make it clear that the activities have by no means been "non-evaluated", as is sometimes claimed by critics of the system. Valuable experience is always obtained even in the case of practical experiments without controlled data collection, and these can afford guidance for future activities. A scientifically controlled evaluation of activities is, however, in itself always desirable. But in the context of reform, where it is desired to change and improve the role and structure of the school as a social institution, scientific evaluations are sometimes of only secondary interest. If the reforms have a political basis, it is only their critics who demand scientific proof. In the reformation of the Norwegian schools - as was earlier the case in Sweden - the fact that hundreds of local authorities queued up annually, after careful consideration, to petition the Government to be allowed to introduce experimental 9-year schools into their local jurisdictions must be regarded as a very impressive form of evaluation.

To take up the question of the educational innovations in the strict sense as referring to the development of the syllabus, the development of teaching materials and the development of forms of teaching and methods of work, etc., would be to go into too great detail at this stage. Of this work it could possibly be said that it has not been subjected to the same consistent planning as the work of reform in accordance with the 9 points. Innovations on the instructional plane constitute in any case considerably more long-term and continued work. We shall revert to this question later in the context of innovations resulting from educational research and development work.

Have none of the experiments failed? It is difficult to find any that have, perhaps just because they have not as a rule included any strict evaluation. Some experiments have been discontinued or broken off. Others have been completed but have not led to any innovations. Of greater importance than listing such experiments is to draw attention to some major and self-evident problems for which no solutions have yet been found. Among these are the questions of equivalence of various choices of subjects in the comprehensive school for admission to the gymnasium. Until the questions of the qualifications resulting from attendance at the comprehensive nine-year school and that of the common evaluation have been solved, the comprehensive school will not have really been introduced. Problems of differentiation in secondary schools will probably be a major subject of educational debate and experiment in the next few years. The planning of the comprehensive school is closely related to this question. The Norwegian attempts to decentralise secondary education may end up in a blind alley. Small educational units result in limited possibilities of choice, and thereby also limited possibilities of specialisation, with the risk that the necessary specialisation will have to be organised in a new school following the new gymnasium.

One field, which in a remarkable way has been overlooked in the Norwegian debate and educational experiment, is teacher training. A common educational training for primary and secondary school teachers within one and the same organisation (schools of education) has been regarded in many countries as the first condition for linking up the earlier primary and grammar school stages into a single unified comprehensive school. The direct relationship between teacher training (for all categories of teachers) and educational research and development work is something in which the NCIE does not appear to have taken an active interest. The reconstruction of courses in school subjects and in behavioural sciences at the universities in order to suit the requirements of the new school better is a third problem area. A fourth is the inclusion of experimental activities in a planned further education of teachers. In June 1961 a new law was passed, however, on requirements for teacher training, which can be seen as a first step towards co-ordination of different types of training. This law, among other things, allows further education for primary teachers to qualify for secondary teaching.

The last-named questions, according to the Innovation Act, fall partly outside the competence of the NCIE. This constitutes a weakness in the present organisation. The co-ordination of teacher training for lower and upper stages, as well as for various categories of the upper stages, cannot at present be initiated by any advisory council but only by the Government itself. These questions can be expected to occupy a central place in the coming experimental activities at secondary school level.

STATUS OF THE NCIE

We have previously shown that the NCIE does not work in isolation but maintains in its work of innovation close and continuous collaboration with a number of bodies and authorities. Upwards, the NCIE collaborates with Parliament and the Ministry of Church and Education. Laterally, it collaborates with the other advisory councils of the Ministry. Downwards, it collaborates with regional and local educational authorities as well as with individual schools and teachers. Contacts are also forged with teachers' organisations and international bodies.

Follow-up of Experiments in Parliament

The Norwegian machinery for educational renewal thus consists of a council for innovation conducting experiments under a ministry responsible for making administrative decisions which are then laid before Parliament as the supreme authority exercising control and setting standards. This machinery possesses decided advantages. As we have already seen, it has made possible the introduction of an entirely new school structure with a new educational content in essential areas.

The experiments are planned and carried out according to one year plans. Annual reports are issued by the NCIE. The Innovation Act also states that Parliament shall be informed annually about the experiments. The last-named provision has not always functioned. And even when the Government, as in recent years, has made an annual report, Parliament has not always taken up these reports for treatment.

The reasons for this failure on the part of the Ministry have not been made entirely clear. It is evident that the activities were so new and unfamiliar that the missing parliamentary reports were not noticed at first. As an explanation it has also been suggested that the Ministry was severely understaffed during the latter part of the 1950s and was therefore incapable of carrying out all its duties. Whether or not the lack of reports may be justified, it may be noted that in 1961 Parliament's treatment of the reports on experiment was marked by impatience over the lack of information.

Since 1961 Parliament has neither received nor dealt with the NCIE's reports on an annual basis. To a certain extent this may possibly be explained by the fact that many of the experiments were assumed to deal with technical matters or with problems on which Parliament had already expressed an opinion. This uneven treatment has, however, resulted in obvious disadvantages for the NCIE, particularly in its planning of activities.

Another disadvantage for the NCIE has been the delay in resolutions and decisions of Parliament which could possibly have been made on the basis of the reports. Thus the NCIE has not received a continuous feed-back from the politicians. This has affected the planning of the experiments adversely, a state of affairs clearly expressed by the NCIE in its report for 1970, for example. These delays, as such, are worth noting. No less remarkable is the fact that in recent years it has been the NCIE rather than the politicians which has reacted to these delays.

Relations with the MCE

During the first ten years contacts between the NCIE and the MCE were lively; subsequently they diminished in intensity. There may have been several reasons for less frequent contacts after the middle of the 1960s. The change of Government in 1965 was certainly one important factor. The Labour Party was in power when the NCIE was created in 1954. Contacts between the NCIE and the MCE were built up within the framework of the educational policy pursued by the Labour Party. In 1965 this state of affairs came to an end when the Labour Government resigned to make way for a Liberal and Conservative coalition government. The new Government's educational programme was less clearly defined and worked out. In one essential respect for the Norwegian educational system the Government adopted a standpoint; namely on the question of centralisation.

The Labour Party's programme for a 9-year comprehensive school offering equal opportunities to all throughout the whole country had resulted in some concentration of school teaching for the 7th-9th years in more financially sound school units. This concentration made junior secondary education available to all students, which can also be regarded as a decentralisation of education during the Labour Government's rule. The Coalition Government, however, saw in this concentration a danger to the development of the Norwegian rural areas and therefore gave its support to experiments initiated by the NCIE intended to test lower secondary school teaching (7th-9th years) with only two parallel classes or even one class per year. The small numbers of pupils in such schools required teachers to instruct in more subjects than their colleagues in the larger schools. Experiments were also carried out with travelling teachers and travelling pupils in order to achieve a specialised and effective instruction.

Demands for decentralisation were stressed still more when it became necessary at this time to expand and spread higher secondary education. The Norwegian experiments at the end of the 1960s on small higher secondary schools are, as we have previously noted, interesting and worthy of closer examination. With regard to the secondary school, a combination of general and vocational education is regarded as a possible way of providing a functionally effective school for small communities lacking the resources for separate higher secondary and vocational schools. The results of these experiments cannot yet be judged. It is thus too early to judge whether this deliberate policy of resistance against the concentration of compulsory instruction into larger units and this deliberate policy of disseminating higher secondary education even to small communities have proved realistic.

That the Coalition Government adopted a positive attitude towards the teaching of Divinity at school and the relationship between education and a Christian upbringing is a fact which should also be mentioned.

However, it is a matter of opinion whether the school planning in terms of centralisation was really different under the Labour Government and the Coalition Government. The determining factors seem to have been general structural changes in the society. The most important change from 1965 from the point of view of the activities of the NCIE was that the reduced daily communication with the Ministry gave the Council a more independent status. This, in combination with the imminence of a political solution of the comprehensive school problem, led to a change in the nature of experiments, that is to say the experiments carried out by the NCIE tended to be more often of the research-based type.

Educational Policy and the Strategy of Experiment

At bottom the long drawn out treatment of the problems of experiment by Parliament is probably to be interpreted as the result of there being no clear policy of experiment among the Members of Parliament. On the overriding question of the democratisation of the school the parliamentary majority favoured one line of educational policy. This, however, was too far lacking in structure to form the basi of concrete educational experiments. Nor did very many controversial educational issues arise. When differences of opinion did make themselves felt (e.g. in the teaching of Divinity), debates did, of course, take place in Parliament. The internal instructional problems of the comprehensive school were seemingly not regarded as being politically controversial. And when differences in principle arose over problems of the comprehensive school, e.g. on qualifications to pursue studies at the gymnasium or the common evaluation for courses on differentiated levels, the points at issue were considered too complicated or too technical for any measures other than general pronouncements by Parliament.

The lack of a long-term policy applies as much to the MCE as it does to Parliament. This seems to have posed a serious problem for the NCIE, at least in the period after 1965. Apart from the two profitable ideas in the realm of educational policy, namely the ambition of the Labour Government to introduce a 9-year comprehensive school and the ambition of the Coalition Government to decentralise the school even in thinly populated districts, experiment on comprehensive schools does not seem to have followed any precise programme.

Relations with Collateral Bodies

The contacts of the NCIE with the various councils for different types of schools have, of course, varied in intensity, due, among **other things**, to the direction and scope of the NCIE's activities. The liaison committees which now exist between the NCIE and each of the councils seems to function well as a rule. They deal with all questions of collaboration. Difficulties seem to have arisen only when the directives from higher authority have proved inadequate. In recent times this appears to have been the case mainly as regards experiments in secondary schools. We shall examine this in greater detail, but before doing so we shall discuss differences in principle affecting the parts played by the NCIE and the councils for the various types of schools.

A reasonable interpretation of the Innovation Act would seem to be that the NCIE is an initiating body entrusted with the task of developing and testing innovations. Successful experiments are subsequently taken over by the various school councils for dissemination and implementation on a large scale; in other words primary experiment for a limited time, and possibly field experiments under the auspices of the NCIE, but implementation as the responsibility of the various school sector councils.

As mentioned previously, this system was not applied in the experiments on comprehensive schools, in which the NCIE assumed responsibility even for the implementation phase. When, despite this, experiments proceeded without serious problems of collaboration, the explanation is probably to be found in the fact that the Primary School Council was not set up until 1959 and the NCIE was therefore until that time the only council responsible for the whole of that educational sector. Collaboration between the two councils during the 1960s was made easier because both belonged to the same division in the Ministry, namely the Primary School Division.

Conditions are different as regards the task which the NCIE has to undertake on behalf of the secondary schools. The field is more varied and divided between a number of councils for different types of schools and corresponding departments under the Ministry. Co-ordination and collaboration between different types of schools at the secondary school level have hitherto been limited, while at the same time every school has acquired a permanent and well established organisation. The planning of the NCIE for experiments at secondary school level has proceeded from the findings of committees, which have often embodied contradictory views on central issues (emanating from majorities and minorities represented on the committees). The proposals have led to entirely contradictory announcements from the various departments of the Ministry, whereas in the main few definite attitudes have been adopted by the political authorities responsible for making decisions, that is to say by the Government and Parliament.

With regard to these circumstances and the further handicap suffered by NCIE in the field of secondary education in that the Council is subordinate to the Primary School Department of the Ministry, current experiment under the auspices of the NCIE on the reformed gymnasium and the 2-year combined basic course must be regarded as a fine testimonial to the powers of initiative of the NCIE. The experiments show that both the NCIE and the other councils concerned possess a considerable capacity for collaboration and are also able to adapt themselves to fresh and in part radically changed demands and tasks.

At the same time, however, the NCIE has made it abundantly clear in its report for 1970 that it is necessary for the political authorities to define the division of responsibility and tasks, above all between the NCIE and the Council for the Gymnasium, which are to apply to secondary school experiments during the next few years. The reasoning cited in this report strongly supports the desirability of the NCIE's being given a clearly expressed mandate and adequate resources for planning experiments and implementing them during the primary phase.

International Co-operation

A question which is possibly worthy of special treatment is to what extent the work of the NCIE, or even Norwegian school policy as a whole, has been influenced by ideas and experience from other countries.

Both in the findings of the Co-ordination Committee and in Parliamentary documents reference is frequently made to the experiences of neighbouring countries. Of British efforts, the Education Act of 1944 is mentioned as providing a model. The main interest seems, however, to be concerned with Swedish experiences. Leading

Norwegian educational politicians have also testified to the importance attached to the Swedish Act of Parliament of 1950 introducing the 9-year school In the same way Swedish experimental activities during the years 1950-62 seem to have been studied carefully and to have had great importance also for Norway.

Development in the educational field in Norway and Sweden during the post-war period has shown some striking parallels. Sweden has been some years ahead of Norway with regard to the majority of experiments on differentiation. Solutions to organisational and educational problems in the Norwegian comprehensive school follow their Swedish counterparts so closely that it is difficult to speak of coincidences. Norway learned many lessons from Swedish experiences and has not infrequently been able to take constructive steps on basic Swedish work, most of all perhaps with regard to syllabuses. It would, however, be a mistake to see in the Norwegian solutions mere copies of the Swedish. One and all have received a distinctive Norwegian stamp. But no secret is made of the fact that the very extensive Swedish experimental material has also been of assistance to Norway.

It is obvious that experiences have not proceeded only from Sweden to Norway. In many cases Norwegian experiences have also been useful to the Swedish school. Within the sphere of Nordic co-operation a number of Scandinavian committees and expert groups on education have collaborated on important problems.

The Nordic Council, the co-ordinating agency for the Parliaments of the Nordic countries, has frequently drawn attention to common Nordic educational problems. In the Nordic Cultural Commission, the co-ordinating agency of the Nordic Ministries of Education, a special section has been working on educational questions up to university level. In this section a series of expert committees have been working during the last fifteen years, including one committee for co-operation in educational research and innovation and another for the co-ordination of syllabuses in schools, etc. These bodies have initiated various activities, the cost of which has been defrayed by Denmark, Finland, Norway and Sweden (usually in the proportion 1/5 + 1/5 + 1/5 + 2/5). One important project is concerned with the harmonisation of the Nordic school systems. For this purpose a number of experts have been appointed to the four Ministries of Education and assigned special tasks, e.g. with regard to qualifications for higher education, teacher exchanges, mathematical terminology, methods and teaching materials for English, French and general science etc. With effect from 1972 this Nordic co-operation is expected to be still livelier as a result of the agreement signed in 1971 by the Nordic countries for co-operation in cultural matters. This co-operation will be directed by a Nordic committee made up of Ministers and with this will be associated a special executive body, a kind of consultative Scandinavian board of education.

It is apparent from the annual reports issued by the NCIE in Norway that its members and officials have continually undertaken study visits devoted to matters of experiment and research. The countries most frequently visited have been Sweden, Great Britain and the USA.

A GLANCE AT THE FUTURE

Finally here are a few comments on the future status and tasks of the NCIE. As these are somewhat briefly expressed there is perhaps a risk of their being misunderstood. Let it be said therefore that what follows is not to be thought of as recommendations or proposals but merely points of view and comments contributing to the current discussion. Whatever solutions are sought in Norway for the continuous promotion of educational development are, naturally, matters which only Norwegians can and should decide.

The Twofold Aim: a Transitional Phenomenon?

As is apparent from what has already been said, the NCIE has been mainly engaged in reform activities, implementation experiments intended to realise decisions of principle in school policy. The introduction of the 9-year school was planned in this way. There is much that suggests that the experiments on a comprehensive secondary school commenced recently may assume a similar character. At the same time the NCIE is conducting a number of less extensive and more freely planned experiments, in which it is not only a matter of proving *that* a certain arrangement is possible or desirable, but where the question is rather *if* and to what extent the object of the experiment is worth introducing on a large scale.

These two types of experiment are different in principle, even if in practice they tend to be performed along parallel lines. It is an open question whether one and the same body should perform both forms of activity side by side. Would it not be better to make a distinction, so that the work of reform is given an organisation suitable for *its* purposes and conditions while the free experimental and research work is allotted a form of organisation separate from the above and suitable for its purposes and conditions?

If, therefore, certain arguments speak in favour of a stricter distinction in matters of responsibility for and organisation of different types of experiment, so also there are reasons which speak against it. If, for example, guarantees are sought that certain experiments aiming at the fulfilment of educational political aims really will lead to the desired results, then the experiments should be prepared and evaluated more systematically than is at present the case. Such an organisation of experimental work would mean that the results gradually obtained would appear more prominently in the foreground and exercise greater influence on the continuation of the work. In that case there would be practically no decisive difference in principle between the major reforming projects and the smaller projects with more emphasis on research. A careful definition of aims and a gradual modification of various systematic features subsequently carried out in the light of collected data would in both cases be an essential aspect of the organisation of experiments.

Position of the NCIE: a Policy-making or a Research Institution?

Various reasons - but above all the requirements of unified management, possibilities of flexibility, and increased integration in the field of education - speak in favour of the NCIE's not being as now an advisory organ independent of the Ministry but instead a department of development within the Ministry, on the same footing as, for example, a department of planning and a number of departments responsible for running various school sectors. Such co-ordination of planning, development and management could also be organised within a directorate corresponding to the Swedish National Board of Education, for example. A proposal along these lines was suggested in Norway on 15 May 1970 in Instilling om den sentrale forvaltnings organisation ("On the Organisation of the Central Administration") and worked out by a committee whose chairman was Jacob Modalsli. The proposal has, however, been laid on ice and as recently as April 1971 it had not been sent out for reactions or submitted to Parliament.

Placing the NCIE as a subordinate part of a ministry or a central authority would confer a more stable control and thereby a better guarantee that political decisions can be implemented and receive uniform expression throughout the country. This would especially be the case if arrangements were also made for governmental committee work to be carried out more systematically and allocated more generous resources than has hitherto been usual in Norway.

Incorporation of the NCIE in a central authority can however also entail disadvantages. The present independent status of the NCIE makes it natural for it to communicate with its political masters as well as with collateral expert bodies and regional and local educational authorities. The status of advisory body and the principle of considerable mobility of the NCIE staff (see page 202) stress the part played by the NCIE as an agent of renewal and initiation. Such special characteristics would not perhaps be so clearly expressed if the NCIE were a section of a department of a ministry or a directorate.

The task of stimulating systematic testing and research would also perhaps be more naturally carried out by an independent advisory organ than by a central authority concerned with the implementation of policy.

Another factor which may have importance for the placing of the NCIE is the clear tendency in Norway to give priority to regional development. This tendency is exemplified, for example, in the experiments concerned with educational service centres, in the expansion of the district colleges and the intention expressed in this context to develop a "counter-expertise". The same purpose applies in the case of "the rules of thumb" worked out by the NCIE for the use of teachers and other instructional resources, and in the so-called autonomy project in the Sandnes region. The effort to bring about a marked regional development can possibly be facilitated if independent, advisory bodies encouraging innovation exist alongside central authorities responsible for making policy. At the same time, of course, a balance must be found between regionally controlled and centrally controlled planning, so that, for example, sound initiative and positive development in some regions may be disseminated subsequently to other regions.

Research and Development Work

The status and tasks of the NCIE should, as mentioned above, be seen as aspects of the greater problem of the long-term development of the educational sector as related to other sectors of society. In this wider context a national body for the purpose of stimulating innovation and renewal in the field of education makes an important but limited contribution. The part it plays and its placing are naturally dependent on how other features appear in the complicated pattern.

However the status of the body concerned with innovation and its tasks may be defined, it seems important to stress the desirability of more systematic research and development work.

a) The work of renewal must, in the field of education as in other fields in future, be increasingly based on purposeful research and development work.

b) If it is to promote innovation in systems of education, this research and development work must be pressed further than has often been the case hitherto. There should also be some changes of method. This applies whether the educational research has been one-sided with regard to experiment or biased in the descriptive sense. Among other things more use must be made of the planning, systematic development and evaluation now associated with technical development work.

c) This research and development work must have its starting point in analyses of requirements and definitions of objectives, requiring close collaboration between representatives of various spheres of responsibility in education and in the surrounding society, that is to say in addition to behavioural and social-science researchers, also for example politicians, administrators, teachers, economists and technicians.

d) The purposeful and applied research required must also be directed from the start towards co-operation with the development and evaluation of the syllabus and the development of teaching materials which demands, and quite naturally leads to, co-operation not only of an interdisciplinary but also of a transdisciplinary type.

e) Such research and development work must be organised as an assignment given by the authority responsible for making the grant; with time, scope and method of reporting planned as much as possible in advance. The research should be organised as projects in which the personal merit grading of individual research personnel should not be the primary governing factor.

f) The objectives for and the main structure of this work of innovation must, even if in very general terms, be determined by the highest political authorities, that is to say by the Government and Parliament. Planning proper within given limits can subsequently be left to a central expert institution, while it should be possible for the research and development work to be entrusted to a considerable extent to research institutions of various kinds.

g) Problems of documentation, dissemination, information and communication in connection with all work on innovation must be continually attended to and acted upon, so that such work on innovation does not lose contact with reality.

Many more additions could be made to the above list of points associated with what might be termed well-organised innovation work. Even if it is felt within the NCIE that this ideal situation is still remote, this is no reason to be despondent. No institution concerned with innovation anywhere on earth has yet begun to function in this way. One of the intentions of this international study, of which this report is a part, is to discuss in some detail whether institutions of this type are possible and desirable.

Appendix 1

LIST OF PERSONS INTERVIEWED

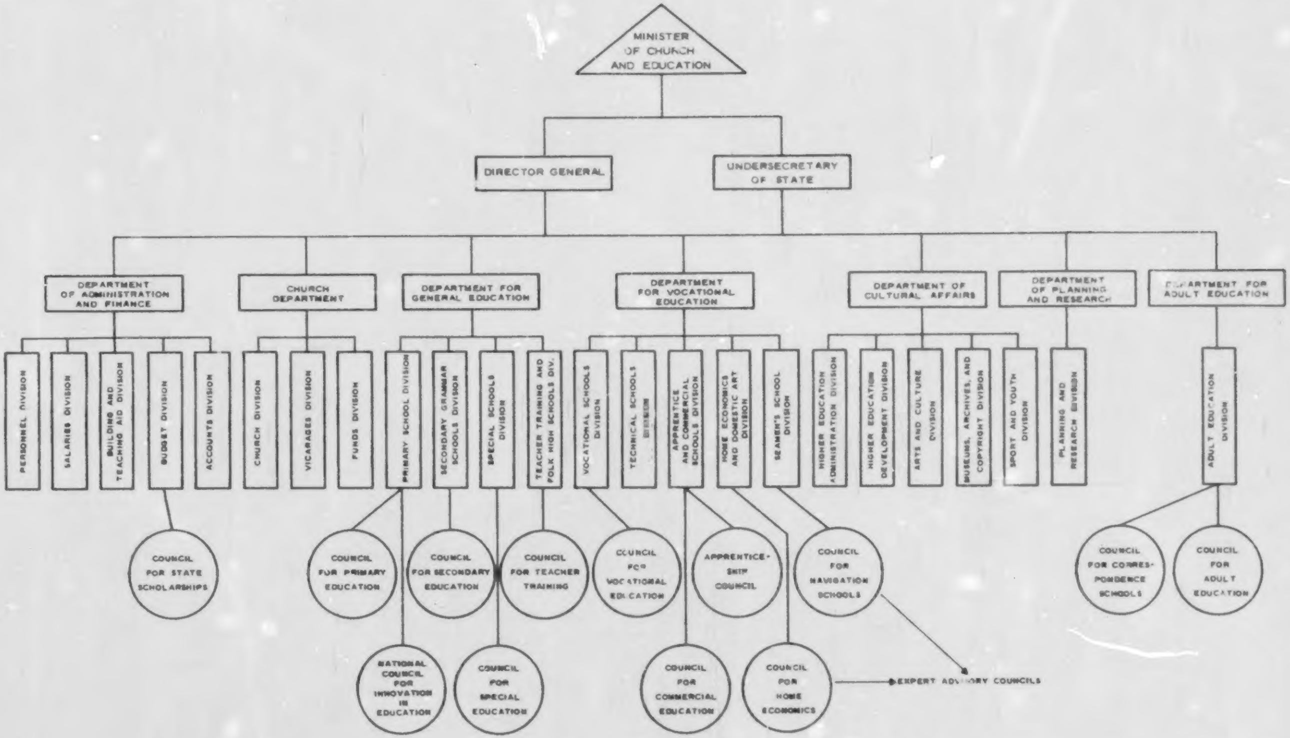
Ragnar Aalen Headmaster, Oslo	Chairman, Council for the Gymnasium
Lars Aase Headmaster, Kristiansand	Director of NCIE secretariat since 1967
August Bolstad Senior master, Bergen	Consultant on teacher training questions
Trygve Bull Senior master, Oslo	Member of the NCIE. Former Member of Parliament and Chairman of Parliamentary Church and Education Committee
Thorleif W. Christoffersen Headmaster, Tønsberg	Vice-Chairman, NCIE
Hans Jørgen Dokka Associate Professor, Oslo	Chairman, Standards Committee of 1967
Kjell Eide Head of Administrative Department, Oslo	Head of Planning Department, MCE. Chairman of Educational Research Committee
Egil Frøyland Senior master, Oslo	Consultant, NCIE, vocational educational questions
Bard Harboe Senior master, Baerum	Research consultant, NCIE, mathematical projects
Otto Hernes Inspector, Trondheim	Member of NCIE
Sven Hokstad Trondheim	Headmaster, Ringve Gymnasium
Otto Ferd. Kaltenborn Inspector of Schools, Oslo	Chairman, Norwegian Secondary School Teachers Association
Johan Kvikstad Trondheim	Headmaster, Trondheim Vocational School
Olaf Larsen Senior master, Kristiansand	Chairman, NCIE
Olav Lindal Inspector, Sandnes	Consultant, NCIE, Educational research, differentiation and evaluation in 9-year school
Ivar Mjøen Trondheim	Senior master, Trondheim Vocational School

Appendix 1

Jul Myhrvold Senior master, Oslo	Inspector, NCIE, secondary schools
Einar Ness Senior master, Oslo	Director of Information, NCIE
Kristian Fr. Petersen Senior master, Oslo	Inspector, NCIE, secondary schools
Per Rand Professor, Oslo	Member of Educational Research Committee
Hjalmar Seim Headmaster, Oslo	Director NCIE secretariat, 1960-67
Tønnes Sirevag Headmaster, Oslo	Director NCIE secretariat, 1955-60. Chairman, NCIE, 1958-61
Helge Sivertsen Chief Education Officer, Oslo	Under Secretary of State, MCE. 1947-56. Minister of Education, 1960-65
Arne Solstad Senior master, Oslo	Research consultant, NCIE, secondary schools
Eiliv N. Solum School psychologist	Consultant, NCIE, special teaching
Alfred Telhaug Senior master, Trondheim	Member of the NCIE
Einar Thorsrud Associate Professor, Oslo	Director, Institute of Industrial Psychology
Øivind Westbye Assistant master, Nittedal	Project leader, NCIE, IMU project
Kjell Wijk Inspector, As	Member, NCIE
Oddvar Vormeland Chief Education Officer, Oslo	Former Vice-Chairman, NCIE. Member of Educational Research Committee

Figure 3

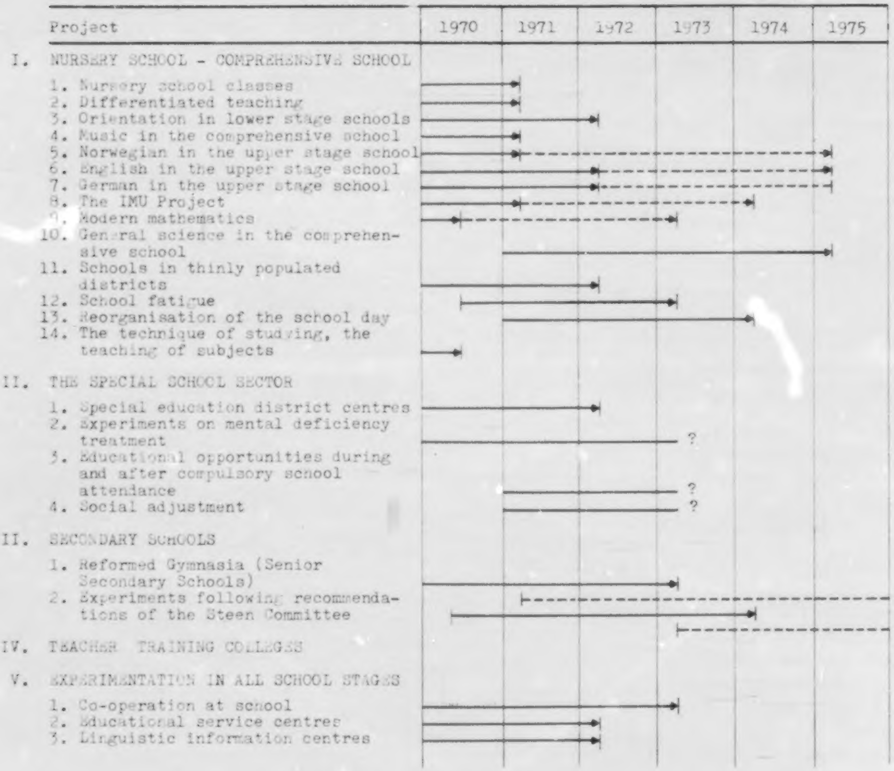
STRUCTURE OF THE MINISTRY OF CHURCH AND EDUCATION


MINISTER OF CHURCH AND EDUCATION
DIRECTOR GENERAL
UNDERSECRETARY OF STATE
DEPARTMENT OF ADMINISTRATION AND FINANCE
CHURCH DEPARTMENT
DEPARTMENT FOR GENERAL EDUCATION
DEPARTMENT FOR VOCATIONAL EDUCATION
DEPARTMENT OF CULTURAL AFFAIRS
DEPARTMENT OF PLANNING AND RESEARCH
DEPARTMENT FOR ADULT EDUCATION
PERSONNEL DIVISION
SALARIES DIVISION
BUILDING AND TEACHING AID DIVISION
BUDGET DIVISION
ACCOUNTS DIVISION
CHURCH DIVISION
VICARAGES DIVISION
FUNDS DIVISION
PRIMARY SCHOOL DIVISION
SECONDARY GRAMMAR SCHOOLS DIVISION
SPECIAL SCHOOLS DIVISION
TEACHER TRAINING AND FOLK HIGH SCHOOLS DIV.
VOCATIONAL SCHOOLS DIVISION
TECHNICAL SCHOOLS DIVISION
APPRENTICE AND COMMERCIAL SCHOOLS DIVISION
HOME ECONOMICS AND DOMESTIC ART DIVISION
SEAMEN'S SCHOOL DIVISION
HIGHER EDUCATION ADMINISTRATION DIVISION
HIGHER EDUCATION DEVELOPMENT DIVISION
ARTS AND CULTURE DIVISION
MUSEUMS, ARCHIVES, AND COPYRIGHT DIVISION
SPORT AND YOUTH DIVISION
PLANNING AND RESEARCH DIVISION
ADULT EDUCATION DIVISION
COUNCIL FOR STATE SCHOLARSHIPS
COUNCIL FOR PRIMARY EDUCATION
COUNCIL FOR SECONDARY EDUCATION
COUNCIL FOR TEACHER TRAINING
COUNCIL FOR VOCATIONAL EDUCATION
APPRENTICESHIP COUNCIL
COUNCIL FOR NAVIGATION SCHOOLS
NATIONAL COUNCIL FOR INNOVATION IN EDUCATION
COUNCIL FOR SPECIAL EDUCATION
COUNCIL FOR COMMERCIAL EDUCATION
COUNCIL FOR HOME ECONOMICS
EXPERT ADVISORY COUNCILS
COUNCIL FOR CORRESPONDENCE SCHOOLS
COUNCIL FOR ADULT EDUCATION

Note: It should be noted that each of the Divisions of the three Departments of Education has at least one "Expert Advisory Council". These councils are not a regular part of the MCE. They are appointed by the King and have a autonomous advisory task. The NCIE has a special role: while its work concerns all types of school, it is linked to the MCE through the Primary School Division (which also functions as a "general office" in the Ministry).

Appendix 3

LIST OF PROJECTS FOR THE NATIONAL COUNCIL FOR INNOVATION IN EDUCATION 1970-1975



I. NURSERY SCHOOL - COMPREHENSIVE SCHOOL

1. Nursery school classes
2. Differentiated teaching
3. Orientation in lower stage schools
4. Music in the comprehensive school
5. Norwegian in the upper stage school
6. English in the upper stage school
7. German in the upper stage school
8. The IMU Project
9. Modern mathematics
10. General science in the comprehensive school
11. Schools in thinly populated districts
12. School fatigue
13. Reorganisation of the school day
14. The technique of studying, the teaching of subjects

II. THE SPECIAL SCHOOL SECTOR

1. Special education district centres
2. Experiments on mental deficiency treatment
3. Educational opportunities during and after compulsory school attendance
4. Social adjustment

III. SECONDARY SCHOOLS

1. Reformed Gymnasia (Senior Secondary Schools)
2. Experiments following recommendations of the Steen Committee

IV. TEACHER TRAINING COLLEGES

V. EXPERIMENTATION IN ALL SCHOOL STAGES

1. Co-operation at school
2. Educational service centres
3. Linguistic information centres

├────────┤ : Primary phase including planning

├ - - - - - - - -┤ : Field experimentation phase

Part Four

THE NEW JERSEY ADMINISTRATION, UNITED STATES

by

Michael D. USDAN, City University of New York
May 1971

SUMMARY

New Jersey, the most urbanised state in North America, is wedged between New York and Philadelphia, and in the past its problems have very often been overshadowed by theirs. Yet one in four of its pupils were classified as disadvantaged in 1969, and one in six were living in poverty.

There were glaring financial and educational discrepancies between the high-income suburbs of the state and the low-income cities: these confronted the new Commissioner of Education, Carl Marburger, who was brought into New Jersey in 1967 by an urban-oriented Democratic governor. The governor departed almost immediately, and, as the author puts it, the "political rug" was pulled out from under the new Commissioner.

From the beginning, the Commissioner showed himself to be tough and uncompromising in his determination to bring the public schools system's problems and inadequacies out into the open. He saw no way of bringing about radical changes in the system if he played "footsie" with the educational establishment, and for this reason his initial relationships with even the most powerful interests were, to say the least, cool. The sacred cows of the system, he believed, had to be confronted openly and candidly before change was possible.

Needless to say, the New Jersey State Education Department did not take kindly to the new Commissioner's attitude, and he soon realised that he would need to place in key positions some people whom he could trust and who shared his beliefs. One such was Assistant Commissioner Stan Salett, a young ideas man brought in from outside the traditional promotion ladder to head the all-important Division of Research, Planning and Evaluation. It is this division which the case study describes in detail. From the beginning, Marburger showed his special relationship with Salett by giving the division many key tasks that would not normally have fallen to it.

Carl Marburger was a controversial figure before he even took office, as his appointment was hotly disputed. He followed this up by making a number of frank and hard-hitting speeches and by indicating that his administration would not be unduly sensitive to the feelings of those already working in the system. From the beginning, his department was criticised for not communicating ideas and reforms widely enough within the system - criticisms which were answered by supporters who pointed to the need to confront the establishment if change was going to occur.

The study describes in detail the essentially political background to the fight for an urban priority policy, the setting up of the Division of Research, Planning and Evaluation, and some examples of its work - including the new widespread Model Cities programme.

Other innovations described include the Urban Schools Development Council, the "Our Schools" project, designed to include the community in future planning, and the Educational Improvement Centre. This last was the only one of Marburger's reforms to date to meet with more or less universal praise - a praise which his critics ascribed to the fact that those in the schools and local administrators were involved in its planning from the start.

The study is an essentially personal account of the fight of two men who believed passionately in the need for change to help the disastrous state of New Jersey's urban areas, and did not mind treading on plenty of toes in bringing it about. It is a story with no end, as it is not yet known whether Marburger's five-year appointment will be renewed.*

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* Late in June 1972 Governor William Cahill announced his intention of reappointing the Commissioner.

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INTRODUCTION

The following is a case study of an attempt to build a central mechanism for educational change in the state of New Jersey. The data for the study were acquired largely through interviews although numerous documents were perused. As a result, much of the subsequent information is impressionistic in nature and cannot be deemed scientific.

The study focuses upon the origins and operations of the New Jersey State Education Department's Division of Research, Planning and Evaluation. The various programmes of the Division, which was created only in 1968, are admittedly assessed somewhat subjectively. No in-depth or systematic analysis of actual programmatic operations has been undertaken. Indeed, since most of the programmes are of such recent vintage, objective evaluations would have been very difficult to make.Limited time and resources permit discussion of only a few of the Division's activities.

The reader will quickly note that this study has a personalised flavour. It focuses on the activities of Commissioner of Education Carl Marburger and Assistant Commissioner Stan Salett. As indicated, the study was undertaken at a time when the Division of Research, Planning and Evaluation's structure and activities were just beginning to take shape. Thus, much attention had to be focused upon the thinking and goals of the Division's main architects and prime movers. The frequent personal allusions to two influential officials should in no way be construed as implying that they were the only individuals promoting educational change and improvement in New Jersey. Their educational philosophy and strategies, however, are of seminal importance to the development of the mechanism for educational change. Indeed, the new Division, as the reader will learn, became the vehicle through which the two men intended to implement the changes they advocated. As the data will reflect, there is disagreement as to the degree of their success in promoting educational innovation.

Despite its limitations and the severe constraints of time, staff, and resources, the following case study illuminates vividly problems connected with implementing educational change at the state level in the United States. As it reflects, educational change is essentially a political process. Thus, as educational issues have become more salient and visible in American society, they have become inextricably linked with the mainstream of politics at the state as well as the federal and local governmental levels. This study of the change process is therefore by definition political as well as educational in focus. This imposes an additional limitation. Because of the political sensitivity and contemporaneous nature of the issues analysed and the fact that the major figures are in public office, it has been necessary to pledge confidentiality to interviewees. Thus, sources are not identified and the study lacks the documentation which characterises more traditional scholarly work.

The reader will also recognise the fluidity of public events and that this study attempts to describe the New Jersey situation as it existed in the spring of 1971.

A glossary is included which provides brief descriptions of the various programmes, titles, and activities mentioned in the study. I hope that this glossary will be useful to the many readers who are not familiar with the idiomatic language of American education.

ACKNOWLEDGEMENTS

I am grateful to many people who made this study possible. Some three dozen professional and lay educational leaders in New Jersey graciously co-operated and gave time from their busy schedules to grant interviews. Without their assistance it would have been impossible to undertake the assignment. Despite the sensitivity of the issues and the personal involvement of many of the interviewees, responses were remarkably candid. If this study possesses the desired balance in its presentation of some rather controversial issues, it is the result of the frankness of the interviewees.

I am particularly indebted to Mrs. Lila Carol, a Fellow in the National Programme for Educational Leadership, for her assistance in gathering the data and invaluable contributions to the preparation and final writing of this document. I would also like to express appreciation to Mrs. Susan Strand, my administrative assistant, for keeping the "shop open" with her customary efficiency while I attempted to meet a very tight deadline for the preparation of this manuscript.

Chapter I

BACKGROUND

The United States is governed through a three-level federal system in which powers and functions are shared among national, state and local governments. Rapid social, economic, and political change has generated a serious crisis in this tri-partite system.

The crisis in federalism is particularly acute at the state level which is, theoretically at least, "the keystone in the arch of the federal system - the bridge between local governments concerned with community problems and a central government dealing with nationwide issues." (Committee for Economic Development, Modernizing State Government, The Committee, 1967, page 11). The structural and functional weaknesses of the states have been a salient factor in precipitating the crisis in interlevel governmental relationships which currently exists. Many of the states, for a variety of reasons, have virtually abdicated responsibility for the nation's burgeoning urban problems. As a result, the states have been bypassed by metropolitan centres which have been compelled to turn to the federal government for assistance in confronting myriad problems like housing, welfare, air and water pollution, education, and transportation.

The weaknesses of state government are of particular importance in a policy area like education where the states traditionally have had paramount legal responsibility and authority. The state's legal primacy in education makes any lack of responsiveness on the part of state government to the educational needs of an increasingly urbanised society especially significant.

These endemic weaknesses particularly apply in the state of New Jersey which, despite the fact that it ranks among the leaders of the 50 states in per capita income and is generously endowed with physical and human resources, has traditionally been a low-service, low-tax state. New Jersey is a Middle Atlantic state bounded on the north by New York; on the east by New York, the Hudson River, and the Atlantic Ocean; on the south by Delaware Bay; on the southwest by Delaware and the Delaware River, and on the west by Pennsylvania and the Delaware River.

It ranks 46th among the states in total area with 7,836 square miles. It ranks 8th in population with 7,203,510 people; 90 per cent white and 10 per cent non-white. Its population density is 959.3 per square mile, the highest in the United States. 88 per cent of the population lives in urban areas.

In 1966-67, for example, the state ranked 48th in per capita state expenditures for all education, 38th in percentage of total governmental expenditures for education, and 41st in 1967-68 in current expenditures for elementary and secondary schools as a percentage of personal income. New Jersey in terms of per pupil expenditures for public education ranks at the very top. However, this is the result of having one of the highest local property tax rates in the nation.

New Jersey thus ranks among the lowest states in state support to public schools. To comprehend efforts to implement educational change at the state level in any of America's diverse states, one must first understand a state's unique governmental ecology. New Jersey's is quite special. It is thus necessary at the outset to discuss New Jersey's prevailing political tradition of localism and its concomitant, namely, weak state government supported at a minimal level. Such a discussion is essential to an understanding of the attempts to institute educational change which will be the focus of this case study.

A State's Search for Identity

Bruce Bahrenburg, in an illuminating magazine article, "New Jersey's Search for Identity", in the April 1964 issue of Harper's discussed the state's problems of identity. Wedged between New York City on the north and Philadelphia on the south as the very compact fifth smallest of the states in area, the bulk of New Jersey's citizenry is polarised economically, politically, and culturally within the metropolitan orbit of one of these two great cities. As a result, there is purportedly an appalling lack of "state consciousness" in New Jersey as the attention of its citizens is diverted to the problems and issues confronting metropolitan New York and Philadelphia. Benjamin Franklin is alleged to have described New Jersey as a barrel tapped at both ends.

These geographical factors delimiting the role of state government are compounded by several political factors. Of singular importance is the tradition of "localism" in New Jersey politics which has served to brake the escalation of state power and has kept state taxes and services at a minimum. Great political power in New Jersey resides with the leaders of county level political organisations. Many legislators, for example, are reportedly handpicked by the county political leaders who have disproportionate influence vis-à-vis legislators in a state that historically has had two-thirds of its public funds derived from the property tax which finances local governments. It is important to emphasise, however, that New Jersey has supported not only education minimally. New Jersey ranks very low in per capita state expenditures for almost all services be they education, welfare, highways, hospitals or penal.

Ronald Sullivan in a New York Times article on 25 March 1966 discussed the then Governor Richard Hughes' defeat on his income tax programme in terms of the "enormous power" of local leaders vis-à-vis New Jersey's chief executive. Sullivan states that although the former Governor stood at the "pinnacle of popular political power" in New Jersey because of his unprecedented landslide election victory of the preceding November and enjoyed "constitutional and patronage power that is envied by most of the country's 49 other Governors", his popular political power was "throttled in the private world of the county political boss." Sullivan attributed the inordinate power of county leaders in New Jersey largely to the absence of any kind of statewide identity. The historical weakness of state government has created a power vacuum and the county political "baronies" have filled the void; thus local patronage, for example, is considered far more important than any that the Governor is in a position to offer. In any event, the opposition of a county leader who was a fellow Democrat caused the demise of the Governor's income tax proposal. This county leader prevailed upon four Democrat Senators from his area, who reportedly "owe much of their livelihood" to him and feared being dropped from future county tickets, to oppose the Hughes programmes. The switching of these few Democrat votes in the Senate was sufficient to ensure the defeat of the income tax proposal. This powerful political tradition of localism must thus be kept in clear perspective in any analysis of efforts to bring about educational change at the state level in New Jersey.*

In addition to this political background any understanding of innovative efforts in New Jersey must be based on an awareness of the profound changes which transformed the state's educational structure on 1 July 1967.

---

* The resounding defeat of Republican Governor Cahill's tax programme in July 1972 reinforced the persisting strength of these political traditions.

Relationships Between Elementary-Secondary and Higher Education

As the demands for more effective education at all levels intensified in the post-Sputnik era, New Jersey, like many other states, was under growing public pressure to improve its educational system. In response to these pressures and after much political controversy, the New Jersey legislature with the strong endorsement of Governor Hughes in December 1966 created a new Department of Higher Education which was to be responsible for all public higher education in the state, including the two-year county colleges. (The county colleges in New Jersey are equivalent to community colleges in other states. They are operated at the county level). Formerly, the six state colleges, Rutgers (New Jersey's State University since 1956), the Newark College of Engineering, and the county colleges were under the jurisdiction of the State Board of Education. The latter body through its Department of Education and executive officer, the Commissioner of Education, was thus responsible for the entire spectrum of publicly supported education from elementary through graduate school.

The State Board and the then Commissioner, Dr. Frederick M. Raubinger, defended the existing structure. They were supported by the state's major public school oriented organisations such as the influential state teachers group, the New Jersey Education Association (NJEA), the New Jersey Federation of District Boards of Education (henceforth called school boards association), the New Jersey Congress of Parents and Teachers (PTA), and the New Jersey Association of School Administrators (NJASA). A large number of state college spokesmen also opposed the proposal to remove their institutions from the control of the Commissioner and the Education Department. The influential county superintendents were also arrayed against the contemplated changes in the state's fundamental educational structure. (This array of organisations referred to in this paragraph is called by its less ardent admirers "the educational establishment".)

Pitted against these politically formidable forces were the Citizens Committee for Higher Education in New Jersey, a voluntary, non-partisan group composed of leaders from all major segments of the New Jersey community. Chaired by Robert F. Goheen, President of Princeton University, the Citizens Committee's roster read like a veritable Who's-Who of the state's industrial, educational, financial, publishing, labour, and civic leadership. The Committee's basic goal was "to arouse the public to the urgent problem of the state's inadequacy in the whole range of higher educational services, and to support measures which will ensure a sound, long-term solution." (A Call to Action, The Citizens Committee for Higher Education in New Jersey, page 2). The sine qua non of the Committee's programme was a fundamental restructuring of higher education which would "free" the public colleges from the jurisdiction of the "public school oriented" Department of Education.

In December 1965, shortly after his re-election, Governor Hughes, despite earlier defeats on the issue, told the Goheen Committee that "higher education will remain the first order of public business of my administration." The Governor was reputed to have said that it "is almost universally agreed" that a fundamental change would be made in the way higher education was governed. Hughes urged the Citizen's Committee to participate actively in a productive dialogue on the various higher educational issues confronting the state.

Some observers interpreted the Governor's speech as denoting an open split with the Commissioner of Education, who is appointed by the Governor for a five year term in New Jersey. The Commissioner was known to be resisting attempts to loosen his control over higher education.

The State Commissioner of Education Resigns

On 19 May 1966 Dr. Raubinger, New Jersey's Commissioner of Education since 1952, resigned to accept a college professorship. The resignation surprised many observers of the New Jersey educational scene, although some commented that the educator's decision was inevitable because of his disagreements with the Governor on how higher education should be controlled.

New Jersey is one of only four states in which the Governor has the authority to appoint both the chief state school officer and the state board of education. The Commissioner, who serves as Secretary to the New Jersey State Board, is accountable to the Governor. Commissioner Raubinger had been appointed for his third term in 1962 by Governor Hughes, but the likelihood of a fourth term reappointment was considered doubtful because of the aforementioned disagreement over higher education policy and other issues. The Governor, who reportedly was strongly influenced by "Goheen, etc., and the rest of that Princeton crowd," was expected to select a new change-oriented Commissioner who would not be "wedded to the past" and would support proposals to create a new board and department to administer higher education.

Dr. Raubinger's decision to resign was linked by some with a recommendation on the reorganisation of public higher education that the Governor was expected to announce shortly. In fact, on 25 May 1966 Governor Hughes presented his Special Message on Higher Education to the legislature. He endorsed the recommendation of the Citizens Committee on Higher Education that a separate Department of Higher Education be created.

Despite strong opposition by the powerful forces representing elementary and secondary education, the New Jersey legislature on 5 December 1966, enacted by a comfortable bipartisan majority legislation that created a separate board of higher education. The bill provided for the establishment of a Department of Higher Education as a principal department in the Executive Branch of State Government (Chapter 320, P.L. 1966, State of New Jersey).

Other sources reported that the Commissioner for some time had expressed a desire to leave his position well before his current term expired. The Governor in reacting to the resignation stated that he was "sorry" and said that Dr. Raubinger's "conscientious service to the people is greatly acknowledged by every person and he will be sorely missed."

The Commissioner's resignation, however, presaged to many the inevitable changes that would soon be forthcoming in elementary-secondary as well as higher education in New Jersey. While lauding Dr. Raubinger's contributions, critics had maintained for some time that changes in the educational status quo depended on the state's acquiring new leadership. They contended that reform of public higher education and the "stifling conservative bureaucracy" in the Department of Education was contingent upon changes in top level personnel as well as structural alterations.

New Educational Leaders Assume Office

1967 was the year in which the transition in educational leadership occurred in New Jersey. Early in April 1967 it was announced that after nearly a year's search for a successor to Dr. Raubinger, Dr. Carl L. Marburger would be nominated by Governor Hughes. Dr. Marburger was described as an innovative educator with a particularly strong interest in problems of educating the disadvantaged in urban areas. Dr. Marburger reportedly enumerated as one of his immediate priorities the need to establish close working relationships with the still undesignated Chancellor of Higher Education.

It was alleged that the Governor, miffed by opposition to his recommendations for restructuring higher education, did not consult the State Board in making his decision to appoint Dr. Marburger. The State Board, if these reports are accurate, was thus faced with a fait accompli and was uninvolved in the selection of its new executive officer.

Other opposition to the appointment became manifest. New Jersey's school administrators, who had opposed the Governor's plans for higher education, also voiced objections to his selection of a new Commissioner of Education. The executive committee of the NJASA, reportedly supported tacitly by some members of the Department of Education, urged the Senate Judiciary Committee - which had to approve the Marburger appointment - to select instead the Acting Commissioner who had for many years been Dr. Raubinger's chief deputy. The initial effort to block the appointment in the Senate Judiciary Committee was successful. Governor Hughes in a news conference reacted angrily to the opposition to his nominee:

> ..."There are always people around who want to hold on to the status quo because they are a comfortable part of it."
>
> "I think the Senate also understands the State Constitution. It doesn't say anywhere in there about school administrators appointing a commissioner. It says the Governor will, with the advice and consent of the Senate ..."
>
> "I don't see any reason or any justice for their action..."

Despite the opposition, the Senate Judiciary Committee in the middle of April unanimously approved Dr. Marburger's nomination. The Governor, "furious" over the attempts to block the appointment, threatened a state-wide patronage freeze. The chief executive reportedly was determined to postpone every patronage appointment within his authority until Dr. Marburger was confirmed. The Senate's ranking Republican allegedly was warned that every bill he sponsored would fail to pass unless he reversed his position and supported the Governor's nominee. Enormous political pressures also were brought to bear as well on a few recalcitrant Democrats. Dr. Marburger's appointment was shortly afterwards ratified decisively by the entire Senate. The new Commissioner took office in July 1967.

On 15 June 1967 Governor Hughes completed his new educational leadership team by nominating Ralph A. Dungan to serve as New Jersey's first Chancellor of Higher Education. The Governor had searched for nearly a year for a man to direct the state's recently created Department of Higher Education. Mr. Dungan, who formerly served as President Johnson's Ambassador to Chile and a special White House assistant to the late President Kennedy, took over his new duties as Chancellor early in August 1967.

Carl Marburger, thus even before he assumed the Commissionership, was a controversial figure who symbolised to many unwanted changes in New Jersey education. Despite the risks, Governor Hughes, in his second term and unable to stand for re-election, had confronted and defeated the politically potent public school "establishment" on the crucial and volatile educational structure issue. Marburger as the new governor-appointed Commissioner from the outset of his tenure faced hostile forces whose scars from the battle just described had not yet healed.

The new Commissioner, as he contemplated the challenges of his position, was acutely aware of his touchy situation vis-à-vis the NJEA and the other professional education groups. He was cognizant of the grassroots power of mass membership organisations in the state of New Jersey, where as mentioned earlier, a decentralised political structure maximised political leverage at the county level. The NJEA was accustomed to working with a rurally dominated Republican legislature and had always enjoyed close and excellent working relationships with Marburger's predecessor and the State Education Department. Indeed, some observers of Trenton's educational decision-making patterns alluded to the alleged "tunnel" under State Street which supposedly linked the Department with NJEA headquarters. Accustomed as it was to this atmosphere, it was predictable that the teachers' organisation would be apprehensive about the new Commissioner. Marburger was not a native of the state, he was known as an "urban reformer", and immediately prior to his appointment to the Commissioner's job by the "lame duck" ("lame duck" is an expression used to describe a political official who cannot or will not accept another term of office: in New Jersey, the Governor is restricted by the State Constitution to two four year terms of office) Democratic governor, he held various posts in a Democratic Administration in Washington. Marburger, as he planned for the future, was cognizant of the widespread unhappiness with his appointment within professional education circles. He knew that his every move would be assessed carefully by politically potent forces who were apprehensive about his background and his widely rumoured plans for large-scale educational changes.

New Jersey's Demography

An overview of New Jersey's demography will help the reader to comprehend better why Commissioner Marburger felt that changes were needed and focused his attention upon urban problems. The data below is taken from a 1969 Urban Schools Development Council document entitled Educational Issues and Answers. The Urban Schools Development Council (USDC) is a coalition of New Jersey's ten largest cities designed to promote and co-ordinate common approaches to urban educational problems. It will be discussed subsequently in some detail.

New Jersey is still thought of by many in terms of its nickname, "The Garden State", reflecting a popular misconception of its being a small, bucolic area. This image, however, is far more fantasy than fact. With a population in 1968 of 7,203,510, New Jersey ranked 8th among the 50 states. This figure represents an average annual growth rate exceeding 2.3 per cent since the 1960 census. This very rapid growth rate exceeds that of the nation as a whole by almost 50 per cent. Between 1960 and 1967, the total United States population increased by only 10.4 per cent while New Jersey's population increased by more than 15.4 per cent. This rapid growth has had a significant impact upon the state's school systems, which must enrol 40,000 to 50,000 additional children annually.

New Jersey has been referred to as the nation's most urbanised state. Its population density, as of 1 July 1968, was 959.3 persons per square mile which is by far the highest in the nation. 88 per cent of the population is concentrated in urban areas. 41.38 per cent of the state's population resides in the 24 largest municipalities which occupy only 5.4 per cent of the land area.

This unparalleled high rate of urbanisation has caused major educational problems for New Jersey's larger cities, which have the greatest concentrations of the poor. The number of underprivileged children in urban areas continues to grow as the poor, by necessity, are compelled to dwell in densely populated areas to obtain needed housing and mass transportation facilities.

As of April 1969 over 347,000 of the 1,419,415 students enrolled in New Jersey's public schools were classified as disadvantaged. Almost 180,000 of the students lived in poverty while another 70,000 had limited or no English-speaking ability. 30,000 students were classified as physically or mentally handicapped while nearly 5,000 were categorised as neglected, delinquent or migrant children.

The USDC document indicated that over 64 per cent of the children enrolled in the schools of its ten member central cities

(Atlantic City, Camden, East Orange, Elizabeth, Hoboken, Jersey City, Newark, New Brunswick, Paterson, and Trenton), were members of minority groups. The state-wide average school enrolment of minority group youngsters was only 19 per cent. The inordinate incidence of special needs among minority group students, it was pointed out, greatly compounds the fiscal problems of the cities. Urban centres had tax rates that were almost double those of the suburbs where youngsters generally came from more favoured environments and had less need for costly special programmes.

The glaring financial and educational disparities between high-income suburbs and low-income cities thus became issues of paramount concern to Commissioner Marburger. He sought to call attention to the plight of the cities and the gross inequalities of educational opportunity that existed in New Jersey which ranked seventh among the fifty states in per capita income. The state despite its relative wealth had failed to support education adequately. In 1968 New Jersey ranked 49th in state and local expenditures for all levels of education as a percentage of total personal income. The state thus had done very little to equalise the fiscal imbalances between the suburbs with their relatively healthy tax bases to support education and the cities with their low income levels, high population densities and shrinking sources of revenue.

The Commissioner's emphasis on urban school problems was to be the hallmark of his administration. His focus on the cities was quickly apparent as he visited numerous urban school systems shortly after assuming office. Indeed, his urban strategic thrust had as a concomitant the projection of a low profile in the more affluent suburban districts. The latter, well represented in the legislature and relatively affluent, did not need the Commissioner's attention as desperately as did the cities. Marburger's strategy for change was thus based upon building state level leadership that could service the cities which he felt had been neglected for too long by the Education Department. Marburger, through programmes like "Model Cities" with its Departmental urban education specialists, attempted to provide conduits for the cities that would be analagous to the services and linkages that the county superintendents provided for suburban and rural districts.

The Commissioner, then, has employed a state-and not a state-wide strategy. Because he focused his time and energies upon the urban areas where 85 per cent of the state's poor lived (9 per cent of the total population is categorised as poor), the Department in recent years has been less visible to the increasingly populous suburban areas. Indeed, as we shall note frequently in subsequent pages, the Commissioner has been criticised by many educators because of his alleged failure to communicate information about the Department's programmes to the field.

This low profile, however, is rather deliberately maintained. There is considerable apprehension within the Department that widespread dissemination of the various urban-focused activities might be politically counter-productive. It is feared, for example, that suburban school districts, beset with local resistance against property tax increases, could use their great political influence to reduce the resources that the Education Department is attempting to reallocate to the cities. In any event, the Department has been accused of failing to communicate effectively with many of the constituent groups it is supposed to serve.

Political Conflict from the Outset

It did not take long for the new Commissioner to stir the fires of educational discontent. Early in his tenure he made a controversial speech at a state-wide educational meeting articulating the point of view that school districting lines should be "seriously challenged" in dealing with racial imbalance. The new Commissioner also emphasised the need for deep and basic educational reform and greater attention to New Jersey's festering urban problems. Politically, he was soon in trouble - several prominent Republican politicians, including the Senate minority leader, incensed by his comments on the racial issue, had asked him to resign after he had been in the capitol a very short time. Thus, after the new Commissioner had been only a few months in office, leaders of the NJEA and other professional organisations had not had their early fears allayed. Marburger, they believed, was planning to institute important changes in New Jersey's educational system without co-operating or consulting with the educators themselves.

Part of this reaction was due to Marburger's background as an outsider and the fact that he was an unknown quantity. But it was also due to some of his actions. His early speech calling for racial balance had been less than ecstatically received by many of the state's political and educational leaders. Indeed, this speech was considered by some to be the major issue in the election of 1967 when the Republicans regained control of the New Jersey legislature. Marburger's external political problems and clashes permeated all facets of his early years as Commissioner. An understanding of his efforts to initiate educational change both within and without the Education Department must be viewed within the context of these political struggles.

Although Marburger and the NJEA and its allies did avoid frequent and overt clashes during the first few years of his term, relationships were anything but harmonious. Many teachers and administrators resented the Commissioner from the outset of his term in office. They claimed that instead of positive leadership they were receiving blanket indictments of the schools and the professionals responsible for them from the state's chief educational officer. Marburger and his counterpart in higher education, Ralph Dungan, were accused of "headline hunting" and not wanting to work with the educators who had to implement the changes called for by their leadership. Marburger was accused of giving the public a very negative impression of New Jersey's schools, teachers, and administrators. The professionals and their leaders felt that they were not being consulted by the Commissioner as purportedly he succeeded in making headlines but did very little to institute the changes he wanted. Indeed, educational organisations passed resolutions asking the Commissioner to "communicate" and "co-operate" with them.

Critics of the Commissioner commented that they hoped he would indeed be a successful leader in rejuvenating an unimaginative state educational agency. From the beginning, however, these critics avowed that Marburger was resented by many educators because his style of leadership consisted of "beating people into doing things". His foes contended that Marburger's leadership should not have consisted of tearing institutions down but in building and working with the educational resources New Jersey possesses.

Early in the fall of 1969 these relatively covert tensions erupted publicly. In September of that year, the Commissioner was interviewed by a newspaper reporter. Marburger was under no illusions about the potential repercussions as he responded to the reporter's questions about the status of education in New Jersey.

In less than two months the voters of the state would elect a new Governor to replace the lame duck chief executive who had appointed Marburger. The Commissioner recognised his vulnerability regardless of who won the impending election. His five year term of office had almost three more years to run but he was not sanguine about achieving his educational objectives if the Governor and the legislature were hostile to his continuance in office. The NJEA with its political muscles flexed in an election year could cause the Commissioner a great deal of trouble. Yet in the interview, which appeared in print on September 18th, Marburger was critical of virtually all aspects of the educational structure in New Jersey.

The article was entitled "Schools in Rut", and the Commissioner's basic theme was the necessity for overhauling all public schools in the state to make them more "responsive". He challenged some of public education's most sacred traditions. He called for recognition of the varying abilities of teachers, more leadership from the State Education Department, and a redefinition of the role of school administrators who, according to the Commissioner, "weren't doing the job." Indeed, Marburger hit particularly hard at the administrative establishment, in effect stating that the selection of administrators was more in the nature of running an obsolete obstacle course consisting of inappropriate hurdles rather than assessment of their creativity, innovativeness and ability. Marburger said that in his opinion "administrative tenure is an absurdity" and voiced his disinterest in "course counting hurdles." One way of overcoming this vicious circle, he felt, would be to bring people from outside the traditional sphere of professional education into school administrative posts.

The same applied to teacher recruitment, training and tenure practices. The current pattern of tenure practice was a hindrance, not a help, to the development of quality education in New Jersey. The Commissioner made plain his opinion that sources of teaching talent other than the traditional ones were necessary if fundamental improvement of education was to take place. As an example he noted that there were Peace Corps types of people who might not see teaching as a life's work but still could make valuable short-term contributions.

He also questioned the validity of basic staffing patterns in public schools and called for differentiated teacher functions and salaries, as well as the selection of master teachers with the participation of both teachers and students.

The Commissioner wanted the State Education Department to play a central role in assessing the entire elementary and secondary education programme in the state. School districts would have to become more accountable to the public in their operation, with the amount of state aid received by local school districts predicated on their performance in meeting established standards. To carry this forward the state's chief school officer must have financial leverage in dealing with local districts, and must have the use of output measures to assess the productivity of schools.

The Commissioner knew that there would be "great resistance" to his ideas which cast fundamental doubt on the efficacy of quite a few of education's "sacred cows". As one New Jersey paper put it, the Marburger interview had set "something of a course record for plain speech".

The negative reaction that Marburger had predicted in the interview materialised quickly. In a letter delivered to Marburger on September 22nd, and made public that same day, the NJEA bitterly attacked the Commissioner for the comments he had made. The letter, signed by the organisation's Executive Secretary and President, stated, among other things, that "unless you can lead, rather than condemn, it would be better for the schools of New Jersey that you step aside and let someone lead who can..."

The letter further criticised Marburger for his: "...wholesale condemnation of education leaders, your disdain for well-trained teachers, your attempt to ignore certification standards - and your criticisms of others for your own failure."

The NJEA letter also contained some positive advice for the Commissioner - he should realise that city teachers need "your help rather than your criticisms". In its letter, the NJEA also gave its opinion that the Commissioner had accomplished little during his tenure but that he had demonstrated an inability to work with fellow educators which could not be covered up by "lashing out at those who have given their best to produce hundreds of quality schools" in New Jersey. In a separate statement, a NJEA spokesman characterised Marburger's interview as "the culmination of a long series of incidents when Marburger has popped off against teachers and other school people and sat in his ivory tower singing out these proposals."

The Commissioner, of course, did not resign despite this strong attack from the state's most powerful education organisation. A spokesman for the Commissioner said that the latter's remarks should not be interpreted as a "blanket condemnation" of teachers and administrators. This response, however, did little to mitigate the confrontation. This explosion illustrated and merely made publicly visible the conflicts within educational circles that had been raging since Marburger's assumption of the Commissionership.

The Commissioner's style of leadership undeniably exacerbated his rather strained relationships with public school leaders. As reflected in his challenges to basic educational keystones like tenure and compulsory education, he did not adhere to the safe consensual style of politics so typical of schoolmen in New Jersey and elsewhere. The Commissioner believed strongly that dramatic and immediate educational changes were necessary, particularly in urban areas. He felt compelled to constantly stretch and test his powers. The crisis in the cities was urgent and he held little brief for a style of leadership which utilised ambiguities in administrative prerogatives to do little or nothing to bring about desperately needed changes. Marburger's style of leadership, in other words, used ambiguities not as an excuse to maintain what he considered to be the intolerable status quo but as a vehicle to test his administrative powers.

The new Commissioner thus adhered to a philosophy of leadership that was destined to precipitate conflict in a state in which educational policy traditionally had been set in a consensual manner. His regime then was characterised by intense debate and controversy over educational issues and questions that had heretofore not surfaced publicly in New Jersey.

Change in the Education Department

Some knowledge of the new Commissioner's political problems and administrative style provide essential background for understanding the internal problems he had to face in his own Department; a Department, which, when he assumed office, was staffed with many whose views paralleled those of his political opponents. Since the NJEA had previously had such close working relationships with the former Commissioner, there were naturally many in the Department who resented Marburger's selection and who continued to maintain close connections with the NJEA. Marburger, who was chosen by Governor Hughes because of his urban orientation and reformist proclivities, also found a Departmental staff with almost no urban experience; a staff that was accustomed to working within established educational channels. Most of its key members had traditional credentials and followed conventional career patterns. Their views on the role of the schools and citizen participation were somewhat more restrictive than those of the new Commissioner and many felt that only local school boards provide legitimate sponsorship for educational activities.

External events, of course, had the effect of exacerbating internal problems. A few months after Marburger's appointment in 1967 the Republicans won back control of the legislature, an event which some attributed in part to the Commissioner's controversial speech on racial integration made just prior to the election; a speech which, it was claimed, fed the already ignited flames of the white backlash. The combination of a newly elected Republican legislature and the antipathy of the NJEA did not bode well for the success of Marburger's plans to make dramatic staffing changes in the Education Department.

The Commissioner's attitude toward his staff was the result of two factors: his recognition that several top level people openly supported the candidacy of the former Deputy Commissioner for the job, and secondly, his feeling that it was necessary to get new blood into the agency to revitalise it. Indeed, there were those in the Governor's office who felt that his "housecleaning" of the Education Department was progressing too slowly. It is pertinent at this point to make some additional comments about a small group of assistants who were quite influential in advising Governor Hughes on major policy issues such as education. Steve Farber and several others because of their élite university backgrounds were called the "Ivy Mafia" by some critics who were less than enchanted with the power wielded by these young men who had little or no first-hand experience in public schools. Farber, in particular, as Hughes' special assistant on education,was very critical of the public schools of New Jersey and reportedly played an instrumental role in the ultimate hiring of Marburger as a reform-oriented Commissioner.

It might be added parenthetically that more and more elected officials are appointing special advisors on educational matters. This trend reflects the desire of Governors and other public officials to acquire independent sources of information about education as it becomes more politicised in the United States.

Farber, for example, had been a central figure in planning the Governor's Conference on Education held on 2 April 1966. At the conference Governor Hughes was reportedly convinced of the need to dramatically reform public education in New Jersey. This conference allegedly was instrumental in his ultimate decision to appoint an urban and change oriented Commissioner of Education.

The new Commissioner's critics, in fact, ascribe many of his mistakes to the poor political advice he had received from the "anti-education" Governor's aides and the "Princeton crowd". (Princeton, New Jersey in addition to being the home of Princeton University, is the geographical base for many social, academic, and political élites who are very critical of the public schools). Some claim that Marburger's negative views toward the education establishment were predicated upon one-sided a priori briefings provided by these alleged "anti-educationists".

Marburger had delayed acting as quickly as he might have liked in changing his Departmental staff. Despite the fact that his staff enjoyed no civil service protection and there were no legal doubts about his authority to act as he saw fit in personnel matters, the new Commissioner proceeded relatively slowly in reorganising the Department.

He knew as an experienced schoolman that his success as Commissioner would be contingent upon his ability to strengthen his already strained relationships with the administrators and teachers in the field. Several departmental staff people whom the Commissioner wanted to replace enjoyed excellent reputations and a wide following among practitioners throughout the state. There was little doubt in Marburger's mind as he pondered the issue of whether to dismiss several high ranking incumbents that they quickly would become martyrs and rallying points for his already considerable opposition in New Jersey if they were fired. What would the field think of a Commissioner who forced the resignation of fine educators who had devoted so many years of selfless service to the state? Marburger was compelled to think of his tenuous political position after the 1967 election. It was true that he had been appointed for a five year term and could serve until 1972 despite widespread opposition, but what would be gained educationally for New Jersey if he found himself at even greater loggerheads with and estranged from the legislators, teachers, and administrators of the State? Several of the high ranking Department members whom Marburger wanted to replace also had strong support among the politically influential county superintendents. It was possible, if Marburger forced early retirements, that the issue would escalate into a crusade which could permanently undermine his effectiveness as Commissioner. Indeed, one influential member of the Department had made public the fact that after the Republican sweep in 1967, he had called the former Commissioner to celebrate the good news and the implied repudiation of Marburger.

A Key Appointment

The Commissioner, however, did make one particularly significant staffing move that was to be of central importance in his efforts to bring educational change to New Jersey. While on his prior job in Washington, he had worked closely with Stanley Salett, a bright, young, vigorous official in the Office of Economic Opportunity. Marburger was impressed with Salett's "creative talent", "innovative zeal", "hard-nosed ability" to evaluate diverse projects, and his "consummate skill" in hiring good staff.

Marburger believes that people are more important than tables of organisation. When he accepted the New Jersey Commissionership, he wanted someone to stimulate thinking and to generate ideas. In addition, the new chief state school officer needed a sounding board, someone whom he could "bounce ideas off" and talk to. Marburger was aware that he was coming into a somewhat alien and "locked-in" educational establishment in New Jersey. He knew of the unhappiness his appointment had caused within educational circles. He also knew that as an outsider he would need someone he could trust. Stan Salett met these all-important criteria. He and Marburger in addition to their mutual professional respect also had become close personal friends. Salett by pre-design was to become the pivotal figure in Marburger's efforts to implement his mandate to precipitate innovation and more of an urban thrust in New Jersey. Indeed, Salett was correctly identified as the Commissioner's major change agent.

Marburger realised that his day-to-day operational responsibilities as Commissioner would preclude him from spending large amounts of time planning educational change. His mandate to change education and provide an urban thrust could be fulfilled only if he built into his operations a new capability to plan for the future; his goal was not to repeat the past. Marburger knew that Salett shared his views on what educational change should and must entail. The two men had engaged in many extensive discussions and shared similar opinions about the need to reform public schools. Both regarded the public schools (and the New Jersey Education Department as well) as traditional inflexible institutions absorbed in day-to-day operations. As a result, they considered these agencies incapable of generating the capacity for renewal and change.

Marburger and Salett also believed that change had to be constant and that basic questions had to be asked about the public school enterprise. In their talks they focused critically upon some of education's most sacred definitions. Who is a student? Who is a teacher? What is a school? What is its role? Should compulsory education be maintained? What is the function of a state educational agency? In their explorations, they philosophically questioned some of education's most inviolate keystones and hoped that different options could be developed and made available. They discussed the need for new kinds of institutional arrangements and for broadening the base of participation in educational decision-making, particularly in urban areas. Marburger and Salett shared the viewpoint that professionally dominated school systems had to be opened up to alternative ideas and expanded community involvement.

Marburger and Salett thus shared an overall philosophy and strategy for change that was anathema and represented "planned chaos" to many professional educators. Many teachers, administrators and leaders of educational groups believed fervently that American public education, despite some admitted failures, had achieved great successes and that its basic structure and modus operandi were sound. The organised teaching profession, in particular, was apprehensive about any approaches that might encroach upon the influence it had so recently gained through more militant negotiations strategems. Marburger and Salett's philosophy and criticisms of the public schools and the dominant role of professional educators were thus antithetical to many of New Jersey's educational leaders. These fundamental philosophical disagreements, further compounded by what some educators perceived as Marburger and Salett's disdain for them, are of central importance in understanding both the Commissioner and his colleague's relationship with New Jersey's educators. They are of major consequence in any assessment of the Department's successes and failures in bringing about change.

At the time Salett was hired there was no vacancy for an assistant commissioner and he became the executive assistant to the Commissioner (a non-classified civil service position requiring no specialised credentials). Shortly thereafter, Marburger, recognising that the Department had no established mechanisms or financial resources for systematic efforts to generate educational planning, research, and innovation, created in July 1968 the new Division of Research, Planning and Evaluation (henceforth referred to as RPE).

Stan Salett was named the Assistant Commissioner in charge of the new Division, an appointment which generated considerable resentment among school men. He was only in his early thirties and most of his experience was in federal agencies. Professional educators many years his senior with extensive local public school experience had been passed over for an inexperienced "OEO type". [The Office of Economic Opportunity (OEO) was organised in 1964 as President Lyndon Johnson's agency to conduct his "war against poverty". Salett spent several years in Washington working for the OEO which supported efforts to increase community participation as a means of rapidly changing traditional institutions like public schools. Such a philosophy and intrusion upon their professional domain is resented by many educators. "OEO type" in this context is a pejorative used to describe many of the young activists who have low regard for the viability of existing institutions and who strive for rapid changes in government agencies.7

Some felt that the Commissioner had added insult to injury with his appointment of Salett whose public school experience consisted of only two years of high school teaching. Marburger's own background had been criticised by some school administrators. His professional background as an elementary school principal, a Title I proposal writer, Assistant Superintendent for federal programmes in Detroit, and work in the Bureau of Indian Affairs was not considered overly impressive by some school administrators who possessed more extensive administrative experience. To some, Salett's appointment only exacerbated their resentment. Such unorthodox backgrounds for positions of Commissioner and Assistant Commissioner of Education were highly suspect in New Jersey where their predecessors customarily ascended the educational career ladder in gradual steps. Experience in working with the disadvantaged in federal agencies like the Bureau of Indian Affairs and OEO was not regarded as being particularly appropriate to school people whose careers hewed so closely to traditional public school settings.

In any event, the new assistant commissioner was widely regarded as an extension of Marburger, and their professional and personal empathy are central elements as we focus in this case study upon the successes and failures of New Jersey's newly created Division of Research, Planning and Evaluation. Salett's greatest asset as he began to shape RPE was undoubtedly the strong support he knew he had from the Commissioner. Indeed, Marburger gave Salett great independence and the latter blueprinted his own modus operandi for educational change although the Commissioner remained a "receiver" for many of his Assistant Commissioner's ideas. Although Marburger did not involve Salett directly in his various conflicts on issues like racial balance, student rights, teacher tenure, and so forth, the Assistant Commissioner was used unofficially as an adviser in most of Marburger's hassles. Marburger, however, made a deliberate effort to separate and insulate Salett's innovative efforts from operational decisions. Marburger viewed Salett's conceptual skills and ability to think things through as complementing his own strengths in interpersonal relations and the implementation of ideas.

Within the Department itself, there was some disagreement with the Commissioner's basic strategy of creating a discrete research office at the Divisional level. Some critics believed that it was fallacious to separate responsibility for the research, planning and evaluation functions from the administrators responsible for operating programmes. They contended that only those officials who control funds and operate programmes are in a position to effectuate durable changes. Some members of the Department still believe that each of the Divisions should have at the bureau level its own programme planning, research and evaluation capability. They believe that instead of creating a separate Division, the Commissioner might have been better advised to have reorganised some of the major Divisions within the Department.

As is customary when new components are added to large organisations, the existing units within the Education Department were apprehensive about the new Division. They were fearful that their own vested interests and power would be adversely affected. The limited success of the Education Department's Co-ordinating Council for Research is revealing and illustrates the defensive manoeuvering endemic to so many bureaucratic organisations. The Commissioner believed that efforts should be made to co-ordinate the Department's rather fragmented research efforts. Each division had in essence been carrying out its own discrete research operations and the Council was created to cut across these diverse endeavours. Heads of the other divisions such as Vocational Education and Curriculum and Instruction were asked to send representatives to the Co-ordinating Council which was chaired by the Director of RPE's Office of Research and Development. Some of the other divisions feared that RPE would impinge upon their domains. Thus, there was, on the part of some Department officials, resistance not only to changes in the status quo but also opposition to new forces which could weaken their own influence. Other efforts to promote intra-divisional co-operation faced deterrents similar to those which limited the effectiveness of the Co-ordinating Council for Research. Many educators, too, consider themselves to be innovators and there was a natural tendency to resent any new unit that was designated as the fount of change and progress.

Yet as it was built, the new Division faced little overt opposition. The Commissioner had indicated clearly that the Division was to become a viable component of the Department. In a state educational agency which does not provide civil service protection for its employees there was little or no organised resistance to the Commissioner's mandate. Although the top professional staff within the Department were not involved directly in the decision to initiate RPE, some internal support for the Division's creation did exist. Even prior to Marburger's assuming office, a Departmental task force had proposed the development of an office of research and development to co-ordinate all research activities. Indeed, the need for such an office within the Education Department had been recognised for years by many of New Jersey's educational leaders.

Chapter II

THE DIVISION OF RESEARCH, PLANNING AND EVALUATION (RPE)

ITS CREATION

The new Division adopted a philosophy of operation that it was hoped would facilitate educational change in New Jersey. The Division would serve as the initiator of change. It would develop new programmes and once they were under way transfer them to operational units like the Department's Division of Curriculum and Instruction. The latter would be responsible for working with local districts on the dissemination and implementation of new educational programmes. RPE would thus serve as the unit which would develop and initially demonstrate exemplary programmes that would then be passed on to operating units.

It should be noted that although the new Division was to serve as the prime focal point for innovative efforts, it was not the Commissioner's exclusive instrument for change. For example, he strove to develop more flexible certification requirements, created the urban education corps, and pushed for greater student participation in educational governance through means other than the Division of Research, Planning and Evaluation. This partial diffusion of innovative thrusts within the Department helped to relieve the pressure on RPE as the sole mechanism for change.

A major objective of the Division of Research, Planning and Evaluation has been to cut across a vertically organised Department and provide co-ordinated approaches to the solution of educational problems. The intention was not to build a Title III empire as control of these funds shifted to state government. The overriding purpose of the new Division was the creation in the New Jersey Education Department of badly needed capabilities. The Department needed to build capacities to carry out developmental activities and to generate a research base for planning and evaluation as well as instruments for educational change. The Division's mission, in brief, was to enable the Education Department to assess needs, generate research to develop and to test plans to meet these needs, and manage prototype demonstration programmes.

Recognising the internal misgivings and scepticism, an effort was made to mitigate intra-departmental apprehensions in the staffing of the new Division. Key people were recruited from within the Department to serve in the Division's four major offices. The Directors of the Office of Program Development and the Office of Planning were appointed from within Departmental ranks. Outsiders, however, were recruited to head the Office of Program Evaluation and the Office of Research and Development. Special attempts were also made to generate a mixture of insiders and outsiders within the Division's second and third level administrative positions. This pattern of staffing greatly helped the Division's early efforts. For example, the new Directors of the Offices of Program Development and Planning had served in the Divisions of Curriculum and Instruction and Vocational Education respectively. Their formal and informal ties and lines of communication with the Department's major operating Divisions and the field were useful as RPE developed. These lines of communication were considered essential elements in efforts to avert the common failure of many research and planning units, namely, their becoming segmented out of operational activities.

In the autumn of 1968 a fact sheet was issued summarising the projected activities of the four Offices that constituted the fledgling Division:

> The Office of Planning - The Office of Planning will coordinate educational planning activities of the Department. This office will work with other Department units and the public schools in the development of internally consistent, comprehensive plans to meet specific educational goals and objectives. Both short-term and long-range plans will be involved with special attention to the identification of educational problems and needs in the State and the designation of priorities among these. This office also will be concerned with inter-agency efforts of the Department (Higher Education, Community Affairs, etc.). In the design of plans by various units or groups, this office will direct and assist in the integration of innovative practices and promising programmes identified through research and development or by other activities of the schools within the State or across the country.
>
> This office has the additional responsibility for assisting local groups and school personnel in planning programmes related to the Model Cities effort and also for the federal EPDA programme.

The Office of Program Development - This office will concentrate on the development of programme designs and models to meet defined needs; it will guide the schedule of sequential steps to be taken in programme installation; it will provide consultation to individuals and groups regarding the design and conduct of specific programmes in relation to total educational programmes and to priority needs of the district and the State; it will furnish information and data concerning innovative practice undertaken by public schools of the State. The office will work closely with two recently created regional groups: the Urban Schools Development Council and the Southern New Jersey Educational Improvement Center.

A major activity of this office is the administration of Title III, ESEA for the Department. Starting this fall, State Departments of Education assume responsibility for 75 per cent of the funds allocated to the State by the US Office of Education. (Title III, ESEA is concerned with the development and implementation of innovative or exemplary educational programmes and approaches.)

The Office of Program Evaluation - The Office of Program Evaluation co-ordinates evaluation activities undertaken to improve instructional systems at all levels throughout the State. It will establish criteria for evaluating results of new or modified programmes. It will draw together staff or consultant groups or individuals to determine the most feasible means of appraising activities and techniques and gathering meaningful data for evaluation. Based upon evaluation of results, this office may determine the level of desirability of adapting or modifying a given programme. The office will develop a system of information and dissemination media to be utilised in the introduction of proven innovative systems in education.

Services provided by this office will involve the development and conduct of in-service and training programmes for specially selected groups on evaluation techniques and approaches; the development and conduct of meetings and workshops for educational and other leaders; assistance to other offices and divisions in the Department in the planning of evaluation of effectiveness of State-level operations and programmes; and consultation with representatives of local systems and other groups.

The Office of Research and Development - The Office of Research and Development has the mission of providing all involved in educational change in New Jersey with information and support for testing old and new programmes, modifying existing programmes, and implementing new ones. It will work to co-ordinate and interpret all research in education initiated, sponsored, supported or conducted by the Department. The office will develop technical support and maintain collegial relations with agencies involved in educational research agencies on federal, state and local levels. Special attention will be given to educational data standardisation, collection, storage and dissemination.

The Teacher Innovation Program (mini-grants) and special departmental learning centres created to field-test new concepts and approaches in public education will be co-ordinated in this office.

The bedrock of the new Division was the Title III (federal grants for educational innovation) funds it was asked to administer. Salett and his staff thus had relatively substantial sums of federal money under their jurisdiction at a time when Title III decision-making prerogatives were being turned over to the states. Indeed, without the vehicle of Title III administrative funds, it is doubtful whether RPE could have been created. Its administrative budget for 1969 was $746,000, of which the state contributed only about $117,000. Of the Division's approximately 80 budgeted positions, 60 were federally funded in 1969 (see Report of Governor's Management Commission, November 1970, p.155.) The Division's grant budget for 1969 was $3.6 million. It was not until 1970 that even the salaries of the Assistant Commissioner and his top staff people were transferred from federal grants to state budget lines. For the fiscal year ending 30 June 1971, RPE's total budget was slightly more than $5 million. Approximately $4.6 million or 95 per cent of this budget was provided by federal funds while $500,000 or 5 per cent represented state appropriations. The following indicates the programme-by-programme allocations of federal funds in RPE in 1971:

Our Schools	$ 116,000
Management Information Systems	387,000
Model Cities	109,000
Other Title V Projects	
Model Cities	25,000
Early Childhood	50,000
Education Professions Development Act	60,000
Title III	3,914,000
	$ 4.6 million (approx.)

An Overview of the Division's Operations

Before assessing the Division of Research, Planning and Evaluation, it will no doubt be helpful to the reader to provide a recent brief summary description of its structure, current operations, and relationships with other agencies and groups. (See the Appendix for an organisational schema of the Division of Research, Planning and Evaluation.) The following is derived from the survey, report and recommendations (p.155-156) of the Governor's Management Commission which late in 1970 completed a comprehensive analysis of New Jersey's state government:

> "The Division of Research, Planning and Evaluation of the Department of Education is basically a development unit for innovative educational programmes. In addition, it co-ordinates the planning activities of the other divisions in the department. The division also evaluates its own programmes and, to a limited extent, those of the other divisions, at the same time providing evaluation training for others. It is involved in the Model Cities Programme and performs data processing and statistical services for the entire department.
>
> "There are five offices in the division. The Office of Program Development initiates programmes only upon identification of a specific research concept, together with a defined need and an ongoing evaluation procedure. Typical of the research in the Office of Research and Development is the development of an educational research information centre. Since the success or failure of any programme can only be judged through continuous evaluation, the Office of Evaluation prepares criteria prior to programme implementation, conducts ongoing evaluations, and makes recommendations for change when necessary. The Office of Planning is involved in both short-range and long-range planning. The Office of Management Information is involved in data processing and statistic services for the entire Department of Education."

The activities of the Division of Research, Planning and Evaluation are linked to a wide range of agencies and groups since many of its efforts are of a liaison or co-ordinating nature. At the national level, the Office of Economic Opportunity (OEO, the anti-poverty agency), the Department of Health, Education and Welfare, and the Department of Housing and Urban Development are the major agencies involved in the Division's activities.

At the state level, the linkages include other divisions within the state educational agency, the New Jersey Department of Community Affairs, the New Jersey Education Association, the New Jersey Congress of Parents and Teachers, other professional educational organisations and the New Jersey State Board of Education.

At the local level, many groups are actively engaged in some form of communication or co-operation with the Division. Among these groups are school boards and other local education agencies, community development agencies (Model Cities), city governments, numerous community organisations including citizen groups, social agencies and community action agencies.

An assessment of the Division should be based on some understanding of the basic strategies that were contemplated in launching the new unit. Weighing the pros and cons of defining an overall strategy for educational change and reform in New Jersey, the Division's founders were confronted with the vagaries of state and federal funding. At the time of the Division's genesis there was no state money allocated for educational research and development. As a result the Division's creators felt that they could not generate a master plan or articulate priorities too specifically because there was no assurance of receiving the resources necessary to achieve explicit goals. In other words, RPE would have been terribly vulnerable had it been unable to implement a series of desirable but fiscally unachievable specific objectives.

Although a central design or grand strategy was not enunciated for the new Division, its activities were not a potpourri. From the outset, there were certain basic interrelated principles or assumptions which would determine the allocation of the funds that were available to the Division. The Education Department's leadership had agreed that its uppermost priority was to provide additional resources in areas of greatest need, namely, to New Jersey's urban centres with their large numbers of disadvantaged and minority children. In addition to plans for allocating new monies to the cities, a politically volatile attempt was going to be made to reallocate existing funds into these areas of acute need. We mentioned earlier possible political explanations for the low profile maintained by the Department in implementing its urban priorities and its efforts to earmark greater resources for urban areas. These political constraints, of course, also influenced efforts to disseminate the activities of RPE and the latter's programmes have lacked visibility. The Division may be relatively invisible to many educators because of a predesigned strategem, poor communications, or simply because the rest of the state is indifferent to urban problems. In any event, the Division's activities are purportedly known and appreciated in cities like Newark and in other urban centres. They are, however, unknown to many educators in New Jersey. The Division specifically and the Department in general are widely criticised for maintaining inadequate communications with many, if not most, school districts. Although it is beyond the scope of this case study to describe in detail all the myriad activities of the Division of Research, Planning and Evaluation, several programmes, including Model Cities and the Urban Schools Development Council (USDC), which illustrate the Division's urban thrust, will be discussed discretely in a subsequent section. See the glossary for very brief descriptions of other programmes.

A second overriding priority area for the Division was to be its concentration upon early childhood education. The New Jersey Learning and Development Centre in Newark, the Micro-Social Pre-School Learning System in Vineland, and some of the activities of the Educational Improvement Council (EIC) in Pitman reflect this emphasis. Title I and Title III guidelines (for the allocation of federal funds) also specify early childhood education as a priority thrust.

A third priority, one which has already been alluded to as a source of tension between the Department and professional educators, was the conscious effort of the Division to broaden the base of participation in educational decision-making. The Department's leadership felt strongly that the overwhelming influence of professional educational organisations on important advisory groups had to be reduced. They believed that the vested interests of organisations threatened to compromise meaningful substantive change. Professional domination had to be balanced by more extensive citizen inputs and involvement. Lay citizens and educators speaking as individuals who had evidenced ability in specific areas and not as organisational representatives had to be represented in far greater numbers. Thus, for example, in developing an advisory council for a critically important programme like Title III, a diverse group of talented laymen and non-organisational educators was recruited. This Title III Advisory Committee has reportedly provided a valuable and knowledgeable sounding board for a whole range of Departmental as well as Divisional concerns.

Special efforts have been made to add blacks and other residents of the cities to the membership of the various advisory groups in education. To broaden the base of citizen participation, for example, the Commissioner in co-operation with the Chancellor of Higher Education, developed a Spanish Joint Advisory Committee; a Committee whose members represent proportionately all the districts with significant Hispanic populations. The Committee assists in the planning, development and implementation of federally or state-supported programmes which affect the Spanish-speaking citizens of New Jersey. The Committee, for example, provides valuable input to the state's federally funded bilingual education projects. New Jersey has received modest funding for two consortia of five districts each plus one additional project in one of the participating districts (which is 54 per cent Spanish-speaking). One of the first recommendations of the Spanish Advisory Committee was the creation of an Office for Hispanic Affairs within the Education Department. In response, the Commissioner appointed a native of Puerto Rico to function as an "ombudsman" for the Spanish speaking residents of New Jersey and liaison between the community and the Department. Several other native speakers of Spanish now work for the Department in the areas of special and migrant education.

An Assessment of the Division

Carl Marburger assesses Salett's Division as a "superb operation" considering the fiscal constraints imposed upon it. The Commissioner believes that his tenure would have been "mediocre" without the exciting and innovative programmes which have emanated from Salett's unit. Marburger praises his colleague's "consummate skill" in blending new and old staff into a viable and creative team. He points to a whole range of innovative urban, early childhood, and regional activities which exist in New Jersey because of Salett's creativity. The existence of programmes (see glossary) like the mini-grants, the EIC, the Micro-Social Pre-School Learning System, the New Jersey Learning and Development Centre in Newark, the Camden-RCA project, "Model Cities", and "Our Schools" are attributed in large measure to RPE and its leadership.

Even less enthusiastic observers than Marburger recognise Stan Salett as a key catalyst of change in New Jersey education. Activities emanating from RPE, some sources feel, have helped to surface and generate an awareness in the state of salient issues like race, early childhood education, and the whole broad spectrum of interrelated urban problems.

Many of the criticisms directed against the Division relate to its low visibility to local school systems and the field in general. These criticisms focus on Salett's alleged disinterest in and what some feel is disdain for professional educators.

Supporters of the Assistant Commissioner sharply disagree with this point of view. They contend that if practitioners in the field were sincerely interested in finding out about the work of the Division and urban problems they could do so through Education Brief, an RPE house organ published periodically and widely disseminated, and other sources. Those who agree with Salett's rather independent approach to and style of reform believe that educational change will occur only if there is decisive movement; if one were to wait for consensus to develop among the diverse educational interests, nothing would happen. Independence, they contend, is needed in the realms of research and development and flexibility is required in a dynamic urban society where change is the only constant. They view the old consensual style of educational politics in New Jersey as being no longer adequate and responsive to the acute needs of the nation's most urban state.

Without the Division of Research, Planning and Evaluation, it is maintained, healthy challenges to the established educational order would cease and current inadequacies would persist for another decade or two in New Jersey. Allegedly, prior to Marburger and Salett, no strategy for change existed; there was general satisfaction within the state's highest educational circles. Some observers claim that any change agent in "provincial" New Jersey would have been viewed with a jaundiced eye and that many of the negative reactions to the Division's activities really had their origins long before Marburger's entry into the state.

Those who subscribe to the Commissioner's philosophy of educational reform assert that cleavages and creative tensions are necessary and helpful in advancing thinking and creativity. The recent history of efforts to effect educational reform in New Jersey provides a classic example of the established order resisting change. They believe that it is not necessarily a question of "right" or "wrong" or "good" or "bad" but of an old guard with vested interests which must inevitably suffer in the painful change process.

RPE is given credit for broadening the educational outreach of a one-time very parochial state. Washington and foundation contacts have provided New Jersey with new resources. New Jersey is finally "plugged-in" and aggressively searches for additional sources of revenue to seed new programmes. The state, for example, receives a very ample share of the new federal dollars now available for environmental education. Many former constraints have been removed and schools supposedly are free to experiment in an open-minded atmosphere. New Jersey reportedly is more receptive to new educational ideas and external federal and foundation funding.

The various Title III proposals provided a unique opportunity to work outside the traditional channels of the Education Department and other state agencies. Line-item budgets and other fiscal and administrative constraints imposed by the New Jersey Budget and Treasury Departments, for example, deterred flexible approaches. Title III provided the springboard for RPE to generate new ideas and approaches in areas like community assessment, programme-planning-budgeting, information systems, and programme evaluation. Proponents feel that the whole movement towards accountability would not have got off the ground without RPE's leadership and deliberate stirring up of new ideas to create change. New Jersey now has in its Title III guidelines and operations, according to some informants, one of the nation's most effective systems approaches to programme development and evaluation.

It is relevant to mention at least briefly some of the other new activities or programmes that are attributed to the Division. It has launched statewide training sessions for school people on topics like programme evaluation and review, differentiated staffing, and modern management techniques. The $100,000 per annum Mini-grant Programme which provides up to $1,000 for individual teachers who want to try new instructional techniques was instituted by the Division with NJEA support. The Mini-grant Programme particularly illustrates the turnkey philosophy of RPE. Now operational, the programme has been transferred to the Division of Curriculum and Instruction. Salett reportedly is also responsible for triggering off some significant changes within the Education Department itself. There is now, for example, greater use of outside consultants and an increase in the development of intra-Departmental position papers on major issues.

RPE is also given considerable credit for convincing the New Jersey legislature for the first time in its history that it should provide resources for educational research and development. There is no immediate pay-off in research and development activity. Start-up time is extensive and tangible results must be deferred. Tax-conscious legislators are thus loath to commit funds to such esoteric activities. Indeed, school people themselves because of their immediate fiscal problems are less than enthusiastic about such expenditure. Despite these constraints, however, the Education Department in 1970 was able to push an appropriation of $400,000 through the legislature. These funds are currently being used for research and development purposes in several learning centres that have been established in the state. Governor William Cahill visited the Newark Learning Centre and was singularly impressed. He has recently supported legislation which will provide funds to expand and further develop such programmes. Learning centres such as the promising systems-based early childhood programme in Vineland and the Springfield Avenue community school project in Newark are now being supported by state funds.

The programme which services youngsters in the Vineland Public Schools is designed specifically to assist disadvantaged children through the improvement of their language and behavioural skills. The state-sponsored Vineland Micro-Social Learning Centre, which was made possible initially by Title I federal funds, is operated under the assumption that classrooms should be microcosms of the outside world. Youngsters, it is felt, should spend a great deal of their time working in pairs in fulfilling the Vineland programme's behavioural objectives that children acquire skills in successfully interacting with others and derive feelings of satisfaction in achieving goals. The Springfield Avenue community school project situated in Newark, New Jersey's largest and most troubled city, is a new state-directed effort to meaningfully involve parents in the determination of educational policy and the provision of a broad range of services to citizens in large cities. The project is based on the assumption that parent involvement and total community participation is an essential ingredient to the success of urban educational institutions.

RPE had been promoting the development of regional demonstration and research centres for some time and the decision of the New Jersey legislature to support them is certainly one of its more concrete achievements. In a paper written in autumn 1968, Learning Institutes in New Jersey, Salett had clearly enunciated his dissatisfaction with existing schools and his commitment to creating new educational institutions:

> "We need these centres because we need answers to our all too evident educational problems: drop-out rates of more than 40 per cent in some urban districts, high school graduates in some districts reading three years behind national norms, textbooks

"that do not hold a student's interest, teachers unable to cope with poorly motivated students and students unable to cope with poorly motivated teachers, and through all of this, parents and taxpayers wanting to know why the schools cannot be more effective ...

... the most pressing reason for these centres is to get at solutions to real educational problems that local school districts themselves cannot solve, but which every day limit their capacities for providing quality education. If the State Department does not move into this vacuum, it will be filled imperfectly by small pieces of incomplete research scattered across the landscape, the results of which will only get to classrooms by accident or distortion. No place in the State can run experimental programmes in enough classrooms at one time to make the results useful enough, soon enough to school districts.

"... We believe that the centres will provide the Department with real local outreach. We also think that only the Department, with its county offices and the Curriculum and Instruction Division has the mechanism to disseminate the results of solid experiment and the power to recommend that these results be translated into action programmes.

"The centres represent the most efficient and logical means of de-centralising the State Department of Education in a manner which will place its personnel in direct contact with local school districts and their problems.

"Furthermore, there is little hope of meaningful change within the schools unless our research involves local educators. The centres would provide the laboratory and training centres where local educators could come and see for themselves demonstration programmes in action - where teachers could be given meaningful in-service training. They would also serve as libraries and data information banks housing all available information in the centre's particular area of interest."

The seeds for these learning centres now have been at least sown in New Jersey. While these centres are still embryonic operations and it is far too early to assess them, they do, in the judgment of most sources, have considerable promise. The philosophy underlying them is particularly interesting because of Salett's stress on "local outreach" and on research being ineffectual unless it "involves local educators." This emphasis on localism is somewhat surprising and paradoxical since both Salett and Marburger project an image to many school officials of being "master planners" interested in centralising authority and reorganising inadequate local school systems. The Assistant Commissioner, however, contrary to popular opinion, and despite his dissatisfaction with the effectiveness of many local districts, feels that there is little to be gained by unilateral approaches to educational change in New Jersey. New Jersey, in his estimation, is so localised by tradition and its politics that it is almost a non-state. His strategy and hopes for meaningful educational change are thus predicated upon maximising local involvement in his catalytic efforts at the state level.

He saw little point in running against the predominant current of localism and believed that he could achieve more by relating to individual urban school districts. If there were large scale state fiscal commitments and other tangible manifestations of state level interest in urban problems and educational change, other tactics might have been suitable. In New Jersey, however, state government still reflects a "sacred rural tinge" and local rather than statewide needs.

This strategy of adapting to New Jersey's prevailing norms of localism is helpful in attempting to understand the Commissioner and Assistant Commissioner's "friendly but not cosy" approach to the major statewide educational organisations, an approach that might best be described as "studied indifference." The statewide implications of this will be treated in a later segment of the study. At this point it is relevant just to stress Salett's contention, which would be disputed by many, that even influential statewide organisations like the NJEA do not provide particularly good access to local boards of education in New Jersey. While the NJEA's political muscle at the state level is indisputable, Salett believes that at the local level it has minimal impact upon educational innovation. The surprising emphasis on localism articulated by Salett is reflected in many of RPE's activities. Programmes like Model Cities, the several learning centres, Our Schools, and numerous Title III projects, for example, stress local inputs and initiatives.

Earlier it was mentioned that some considered the Co-ordinating Council for Research a rather limited success in co-ordinating the Department's rather inchoate research efforts. In addition to the interdepartmental Co-ordinating Council for Research, co-ordinating councils in the Division's other functioning areas (planning, evaluation, Model Cities and programme development) were established. These co-ordinating councils were designed largely to provide information and to improve intra-Departmental communication. The Councils, however, could recommend policy in their areas of concern. Representatives to these councils were appointed by the Assistant Commissioners of the Department's several divisions. Each of the co-ordinating councils was chaired by the appropriate programme head in RPE. The same bureaucratic apprehensions mentioned earlier in the discussion of the Co-ordinating Council for Research were manifest in Departmental reactions to the creation of the other councils.

Reports on the effectiveness of the councils are mixed. There is still a lack of clarity in terms of their mandate and role witnin the Department. Some have functioned more successfully than others. For example, one council produced valuable recommendations on evaluation which included criteria for determining what should be evaluated by outside consultants. The Co-ordinating Council for Research developed a policy statement on research procedures to be followed when working with human subjects. Another council generated a statement on programme budgeting which pointed the way to recent changes in the Department's budgetary procedures. Even those who feel that the councils have been unsuccessful acknowledge that at a minimum they have provided bases for improved inter-Divisional communication.

The Assistant Commissioner and others say that the councils have provided a useful informational link between the Division of Research, Planning and Evaluation and the rest of the Department. Marburger and Salett had an additional purpose in creating the co-ordinating councils. They were not certain who their friends were in a new and somewhat hostile bureaucracy. The councils provided a vehicle through which trusted staff in RPE could funnel information to the Commissioner. The latter through this mechanism could know with at least some degree of confidence what was happening in his Department.

RPE serves a number of important and somewhat interrelated purposes for the Commissioner. In addition to serving its primary function as a change agency, the Division of Research, Planning and Evaluation provides him with a needed core of staff with whom he can communicate as well as trust. The Division head and his staff serve and buttress the Commissioner in a number of ways. In essence, they provide him with a "think tank." The Commissioner reportedly views the Division's staff in a collegial way, values their judgment and urges them to "drop in" whenever possible. Thus, RPE's top people have ready access to the Commissioner who tries to protect them from operating assignments which will divert their energies from planning, research and evaluation functions. In these days of recurrent educational crises this is not always possible and several members of the Division feel that their attention has been focused inordinately upon immediate problems and not upon the broader issues of educational planning, research and evaluation. In an age of crisis administration, the Commissioner has been compelled to enmesh trusted members of the Division in fire-fighting activities pertaining to volatile issues like race, finance, and riots. There is a feeling among some of the Commissioner's most loyal staff that for perhaps very valid reasons his attention is being diverted from significant long-range concerns to attempts to solve immediate problems.

Despite these relatively minor concerns, there seems to be little doubt that RPE has provided the Commissioner with a cadre of support personnel who are attuned to his educational philosophy and priorities. In addition, the Division has been the major conduit through which new and more diverse people have joined the staff of the New Jersey Education Department. The Department since Marburger assumed office has attracted more blacks, urban-oriented specialists, and other individuals who have not come up through traditional educational channels.

The rapport which the Commissioner feels for staff members in RPE, not surprisingly, has alienated other "less favoured" segments of the Department. It also serves in a subtle way to redefine the Division's mission. The Division, in effect, has assumed an "add-on" function. When an important project or function comes along that the Commissioner wants handled by staff in which he has confidence, the project is most frequently placed in RPE whether or not it relates logically to the major functions of the Division of Research, Planning and Evaluation. The functions of statistical services and data processing, for example, were consolidated as elements in a newly formed Office of Management Information within RPE.

An excellent example of this "add-on" function is the Department's recently initiated Emergency Food Project. Members of the RPE staff in the summer of 1970 conducted a study of school feeding programmes among the thousands of disadvantaged youngsters in New Jersey's cities. They were appalled to find that only a paltry 17,000 daily free meals were being provided in a state which counted 130,000 Aid for Dependent Children (AFDC) of school age. Nearly 200 elementary schools in the slums of New Jersey's cities lacked lunch programmes. With an OEO grant from Emergency Food and Medical Services, Salett and his staff strove to build a new structure to reach more children with free and reduced-price lunches.

With the Commissioner's strong and needed "constant intervention" in cutting through Departmental red tape, and resistance, a crash programme based in the Division was launched to expand the school lunch programme for needy youngsters. New State and local policies were developed, reimbursement rates were increased, eligibility criteria set by another unit were redrafted, and within a few months the total number of free and reduced-price lunches served daily in New Jersey's schools grew from 52,000 in September 1970 to 89,609 in February 1971. Particular attention was focused upon urban districts which had virtually no school lunch. New school lunch programmes have been started in cities like Trenton, Hoboken, Elizabeth and New Brunswick. RCA Educational Systems, despite some strong Departmental objections, was employed to design a school lunch system which could operate in ninety-year-old schools with no kitchens or cafeterias. RCA's answer was prepackaged meals and classroom feeding under the supervision of community aides. RPE staff, despite bureaucratic resentment, used Title I funds, Model Cities funds, and federal equipment funds as they urged the lunch programme upon recalcitrant school systems and agencies. While the Emergency Food Project has made notable progress, thousands of disadvantaged youngsters are still not being provided with school lunches. RPE staff members continue to work on the problem as one of its "add-on" functions and, as of March 1971 the number of free and reduced-price lunches had risen to 100,483.

The use of Title I funds for school lunches illustrates dramatically the significant philosophical differences concerning the role of the schools between the Department leadership and so many educators. Many of the latter would contend that Title I is an educational, not a welfare programme, and therefore federal dollars should be used for actual school programmes and not lunches. The schools, in other words, are not welfare agencies nor surrogates for the home. Marburger and Salett, on the other hand, view the schools as performing much broader functions for children, particularly poor children, and in the absence of clear cut guidelines to the contrary had no hesitation in using Title I funds for nutritional purposes.

The purposes of the Division of Research, Planning and Evaluation continue to evolve as the Department's needs change. The Division's role has been altered by the demands of a range of special projects.

In recent months, for example, key staff have been working on mechanisms through which the Commissioner can begin to exercise control over his own Department. The Commissioner, it was found, has little means of influencing the priorities of a whole range of federal categorical grants. His major opportunities for change come from federal programmes and yet he has little influence over resources which flow by him and are controlled by various programme administrators and advisory committees.

The Model Cities staff did a comprehensive study of every categorical federal and state aid programme. It analysed guidelines and studied administrative procedures. The study indicated that neither the Commissioner nor RPE could fulfil their priorities unless a grants management system was instituted within the Department. The Model Cities programme-by-programme analysis showed the slippage which had occurred between legislative intent, guidelines, and administrative implementation. Actually, various programme administrators within the Department had infinitely more control over resource allocation than the Commissioner's office, which was not fully aware of the "give" in the system. How then could the Commissioner control his own Department in implementing priorities?

The analysis of the various aid programmes indicated that the state potentially had tremendous discretion in the allocation of funds. The Department, thus, did not merely have to be a flow-through agency. A Task Force under the leadership of the Director of the Model Cities Project, a former OEO employee who had been recruited from Washington by Salett, recommended changes in the formulae through which federal and state grants were disbursed. Despite considerable opposition from Departmental staff who resented others making recommendations about their programmes, a very recent decision was made with the Commissioner's assent to have all federal programme administrators hold 50 per cent of their funds for Model Cities allocation.

This "earmarking" of funds does represent a very significant and politically risky effort on the part of the Commissioner to implement his urban priorities. In the grants management project as well as in most other significant developments in the Department, the "footprints" of Stan Salett and his Division are very much in evidence.

Thus far we have stressed the more positive reactions to the efforts of the Assistant Commissioner and the Division of Research, Planning and Evaluation. We conclude this section with the following appraisal and recommendations concerning the Division made on page 156 of the report submitted in November 1970, by the Governor's Management Commission:

Appraisal

The division operates with an excellent blend of imaginative educational research, programme development, and evaluation. Although the evaluation process still needs further application in many existing programmes and operations throughout the department, there is a very healthy recognition of this need for accountability. The data processing and statistical services areas, however, are not fulfilling the needs of the Department of Education. These functions were recently transferred from elsewhere in the department and need direction and support.

Recommendations

1. Concentrate on introducing evaluation techniques into all present programmes and operations of the department.

In the immediate future, the division as a whole should concentrate on introducing evaluation techniques to all areas of the Department of Education. This effort should be at the expense of new programmes. Until existing programmes and operations are under complete control through evaluation of the services rendered versus the associated costs, new programmes should be given low priority. Present division personnel can be used for this without additional costs.

2. Transfer the Office of Management Information to the Division of Administration and Finance once the management information system is completed.

The Office of Management Information includes data processing and statistical services. Both these functions should be performed for the entire Department of Education and within the staff-oriented function serving the department internally. The data processing transfer is subject to implementation of the statewide Data Processing Recommendations.

3. Transfer the Model Cities Programme to the Division of Curriculum and Instruction within one year.

The Model Cities Programme will be an ongoing operative programme within a year and thus will no longer need the direction of a staff oriented to research, planning and evaluation. The programme can be well handled by the Division of Curriculum and Instruction within its present operational framework.

4. Identify programmes in other divisions that require additional research, development and planning, and consider temporarily transferring them to this division.

This division is staffed with skills which should be applied not only to new programmes but also to existing programmes that are found lacking in substance and performance. The staff is capable of handling this work and therefore should be assigned faltering programmes for redevelopment or termination. When operational once again, the programmes should be returned to the appropriate operational unit.

The most common criticism levelled at the Division of Research, Planning and Evaluation is its lack of visibility and widespread impact in New Jersey. Both critics and supporters of the Division point to the fact that any efforts to change education in a state with such strong traditions of localism must be based on local contacts. The Assistant Commissioner's views on local - state relationships, as expressed in the preceding section, bear out the beliefs of many who desire to maintain strong local control. Yet many educators who were interviewed appear to be unaware of his philosophy which parallels their own.

Tact and patience with the "educational establishment" are not Salett's most notable characteristics and he has generated resentment among members of important groups like the "21 Club", the state's influential county superintendents. The failure to establish rapport with key educators is exacerbated by his purported lack of interest in maintaining contact with key educational associations and their leaders. Although Salett is respected as being creative and highly intelligent, strong concern is expressed that he has not bothered to build relationships in the field which he presumes to service. Critics contend that one must know what is going on in existing structures prior to criticising them and suggesting changes. It is felt that as a young and influential state official, it was particularly important for Salett to have visited school systems in order to build up the necessary confidence in his leadership.

Both Salett and Marburger are faulted for failing, at least in their first years in office, to communicate effectively with the educators who would have to implement the changes they wished to make. Many educators in New Jersey reportedly believe that they were "presumed guilty until proven innocent". They felt that the Commissioner and his top aides were ill-advised at the outset in assuming that New Jersey schoolmen were "know nothings" who a priori would not be amenable to change or reform. Potential allies were not nurtured; allies who could have helped both in the field and in the Department itself to bridge the new leadership's communication problems and philosophical disagreements with many school officials.

It is interesting to note that the Commissioner, at the time of writing, has been visiting local school districts and officials more frequently and reportedly has had considerable success in generating additional support for and understanding of his programmes. However, some sceptics suspect this to be more of a strategem to build a base of support for possible reappointment at the conclusion of his term in June 1972 than as an effort to work within the system.

The same weakness of Marburger and Salett's communications patterns with the external educational environment reportedly surfaces within the Education Department itself, where, according to some sources, their intentions are also vague and unclear. Here too, the role of Salett and his Division is often misunderstood and viewed with suspicion. Salett's unique relationship with the Commissioner allegedly precipitates some apprehensions and influences morale somewhat adversely within the Department. Many of the activities for which RPE has assumed responsibility are seen as threats to existing programmes. Salett is viewed as an extension of the Commissioner and the Division's top staff in turn, is viewed as an extension of Salett.

Some of the senior members of the Department, like many of their colleagues in the field, resent the present leadership for not involving them in planning. Staff members with many years of experience in the Department contend that long standing operational procedures have been changed without them even being involved. Supporters of the Commissioner admit that there has been considerable resentment engendered as internal changes have been implemented, but feel that the Commissioner had no option and that hurt feelings were unavoidable if genuine innovation was to occur in a stodgy inflexible educational bureaucracy. Discontent within the Department was further stimulated by the fact that the Division of Research, Planning and Evaluation was receiving what some considered to be inordinate resources and inappropriate responsibilities.

Salett's departmental role is thus somewhat ambivalent and this in itself creates tensions and apprehensions. His personal and professional loyalty to the Commissioner is unquestioned and his importance to Marburger needs little additional elaboration. On the other hand, Salett as a top line state administrator does have responsibilities to a very broad and diverse constituency which has often disagreed with the Commissioner. Observers have commented upon the difficulty any individual would have in sustaining with unalloyed success these dual and sometimes incompatible roles.

Some of its critics feel that if RPE were to go out of existence, there would be little impact in New Jersey. Despite some successes, the Division allegedly has not initiated or even more significantly diffused a sufficient number of innovative programmes to make a substantial difference in New Jersey education. It has failed to establish close working relationships or meaningful communication with local districts; bridges that are necessary for the permanent implementation of self-initiated change. The Division, although it has triggered off myriad new activities and programmes, has failed to provide goals for educators to follow as they plan to improve school systems. Like most change oriented units in education, the Division has been handicapped in developing change strategies by the lack of baseline data and measurable goals.

The Division's Camden project, according to some critics, illustrates the foregoing point. Several years ago the Department at the Commissioner's request undertook a comprehensive study of the Camden schools. Not surprisingly, several key members of RPE bore the primary responsibility for developing a report which reflected rather comprehensively the social, economic, and educational malaise which grips Camden and many other cities in New Jersey.

The Camden report, some felt, might have served as an entry point for more extensive Departmental intervention in the state's crisis-ridden urban centres. The Camden evaluation did not achieve this particular goal and reportedly had only minimal impact in Camden itself. The data available in Camden were simply inadequate to provide a departure point for systematic change and reform. The Camden experience reflects what some feel to be the Department's ability to surface issues but inability to do much about them. The Camden evaluation, however, did permit Salett and his staff to gain sufficient access to engineer a unique arrangement between the Camden school system and RCA. RCA agreed to use its business expertise in working with the schools to improve their management techniques. Salett created one central fund of Title I, Title III, EPDA (Education Professions and Development Act) and other federal monies to permit RCA to assess through a systems approach facets of Camden's school problems. RCA, under its contract with the Camden Board of Education, for example, is developing unique training programmes for substitute teachers and para-professionals. Some critics of an experiment like the Camden project, while praising it as an exciting vehicle for innovation, are sceptical of its long range impact as a strategy for change. In other words, the changes in Camden are the products of project activity and not of a coherent innovative strategy predicated on adequate baseline data. This weakness appears to be endemic to most efforts to implement educational change.

The Camden project illustrates to some the difficulty the Division has in developing identifiable, coherent, and measurable change strategies. To some, the Division because it is underfinanced and understaffed, represents little more than a "blob", a "hip-pocket" operation with "erratic", "sporadic", "piecemeal" programmes.

Critics ascribe this inchoate image of the Division to several factors. One relates to the lack of clarity as to the distinctions between its research, planning and evaluation functions. The roles of the Division's various offices, according to some sources, are unclear. The tie-in between evaluation and the other functions, for example, has yet to be clearly defined. The role and function of the research office both within the Division and the Department at large is ambiguous. The research function, it is generally agreed, is the weakest in the Division and some critics would prefer RPE to provide needed research services rather than operate programmes. All interviewees agree that there is inadequate basic research being provided. The Department's leadership is reportedly in a quandry on this issue. Because of minimal state support, there is difficulty in recruiting top researchers into educational agencies. There are additional political constraints. Very few states actually support educational research and fundamental questions are frequently raised about the appropriateness of the Education Department even engaging in research in a state with New Jersey's tradition of localisation. There are many who feel that the universities and an organisation like the Educational Testing Service (ETS), which is based in nearby Princeton, are better equipped to do research. Thus the Department's research unit remains somewhat in limbo although the recent state appropriation of $400,000 for the learning centres may help to crystallise its role.

Some of the harshest critics of the Division of Research, Planning and Evaluation would call its title a deceptive misnomer. A few would charge that the Division has done little that is new; that it has merely taken existing activities such as data processing, Title III and other programmes and put them together into one new unit. They claim, with considerable justification, that the Division at this stage in its development consists largely of a planning unit, some programme development work, and the Model Cities project. The Offices of Research and Evaluation are skeletal. They contend that there is virtually no significant research occurring although the evaluation facets of the Division's operation are beginning to take form. The Co-ordinating Council on Evaluation on April 2, 1971, for example, disseminated a report on the status of evaluation in the current operations of twenty-four Department Activities.

Some Department members feel that the utilisation of modern programme evaluation and review techniques started before the Division was created. Resentment is expressed that the Commissioner and the Assistant Commissioner give the impression that the Department had never tried anything new, until the new régime arrived in Trenton. Others, speaking from a somewhat different perspective, are disappointed that the Commissioner and the new Division have been unable to make more progress in areas like regional planning and implementing greater racial balance in New Jersey's schools. Indeed, Salett and several of his top people articulate self-critically a point of view which might surprise a great number of people in New Jersey, namely, their belief that the Division has not been radical or "way-out" enough. Its innovations, they feel, have not challenged sufficiently some of education's basic shibboleths such as the compulsory attendance law for high school students. While Division leaders feel that, as reformers, they have more than tinkered with educational structures, they are somewhat dissatisfied and feel that they may have assumed or accepted uncritically too many of the existing and traditional definitions of schools.

To many, the work and activities of the Division are not clear and uncertainty persists. Should the Division's role be merely catalytic or should it also be involved in programme implementation? Some staff members in the Education Department's major operating divisions feel that the Division of Research, Planning and Evaluation is now running programmes that should properly be under their aegis. There are those who, in theory, believe in the concept of developing innovative projects in RPE, but maintain that unless people engaged in operations are involved from the inception of programmes it is difficult to gain widespread field acceptance of curriculum changes. Better communication between the Division and the rest of the Department has been achieved recently as the new unit has gained experience, but still better communication is necessary. As a result, many of the Division's experiments which may well be worth replicating are unknown and have had little impact in the state.

RPE staff members admit that they have failed in several significant ways. They have not established an effective mechanism to enforce the Commissioner's priorities across the board. The Division's poor communications within the Department and the lack of an effective working relationship have hampered activities. The recent establishment of the Grants Management Office and the previously mentioned Model Cities "earmarking" are designed to rectify these problems and promote better intra-Department communication. Advocates, however, say that the communications gap and functional ambiguities within the Department are not attributable to a single cause. Several of the Department's operating divisions have been less than zealous in attempting to disseminate the projects piloted by RPE. As a result, the plan of having RPE's prototype programmes put into operation by other divisions has not been totally successful. RPE has assumed certain other responsibilities, it is alleged by its proponents, not because it necessarily wants to encroach upon other domains but because of the failure of other divisions to internalise the Commissioner's goals and priorities. Certain key members of the Department do not fully support the Commissioner and grudgingly adhere to his leadership and philosophy under the assumption that his tenure is temporary.

Adherents of RPE contend that the purported communications gap between his Division and the rest of the Department is exaggerated. Other segments of the Department, they feel, know what RPE is about but simply disagree with its modus operandi and the substance of its activities. While RPE's backers agree that many of the Division's projects have had no great impact on New Jersey's schools and that the important dissemination process has been somewhat neglected, they also maintain that the widespread implementation of educational change is very time-consuming under any circumstances. The Division, they point out, has been in operation for a very few years. Even its most outspoken adversaries concede this point.

Chapter III

EXAMPLES OF THE ACTIVITIES OF THE DIVISION OF RESEARCH, PLANNING AND EVALUATION

It is beyond the scope of this case study to undertake a detailed analysis of the numerous activities and programmes of the Division of Research, Planning and Evaluation. Many of the activities were described briefly or at least alluded to in preceding segments of this document. Our purpose in this section is to discuss a few of the Division's programmes in somewhat greater detail in order to illustrate its activities more vividly and give the reader a more concrete feel for its work.(See the glossary for brief descriptions of a number of the Division's programmes.)

THE MODEL CITIES PROGRAMME

The Model Cities project probably reflects more than any of the Division's other activities the Department's urban priorities. This programme also illustrates vividly the Commissioner's and Salett's philosophy concerning the need to broaden the base of participation in educational decision-making and the concomitant need to erode the traditional insulation and isolation of the schools from other interrelated urban problems like housing and jobs. This type of "OEO approach", as we have indicated, engenders resentment and is anathema to many New Jersey educators who have a more circumscribed and traditional definition of the role of the schools. The schools, in their estimation, are in the business of education and cannot be surrogates for the home and family. The limited resources available to schools must be allocated for educational and not for social purposes. The dollars, for example, spent on Model Cities might be better invested in teacher training activity. Marburger and Salett, on the other hand, see an amelioration of urban blight and despair only through the co-ordination of various institutions providing services to disadvantaged urban populations. The formal school cannot do the job unilaterally for the deprived city youngster. The city's various life support systems such as housing, welfare and employment must be integrated with educational institutions if youngsters are to learn. For example, hungry children will not do well in school. The Education Department's "Model Cities" programme thus is of particular interest because it symbolises and sets in such bold relief the very basic and significant philosophical differences between Marburger and Salett and so many professional educators about the school's role.

Under the Demonstration Cities and Metropolitan Act of 1966, a "Model Cities" programme was authorised by the United States Department of Housing and Urban Development (HUD). The programme's broad purpose was to "improve the quality of life" in the blighted neighbourhoods of 150 federally designated cities in the United States. Essentially, the programme sought to revitalise communities by attacking their severe social and environmental problems through focusing the resources of a number of federal agencies into target areas within these cities rather than spreading the same resources more thinly over a wider area. To be successful, "Model Cities" requires the concentration of resources in "a comprehensive plan for broad-gauged revitalisation of the inner cities."

A local City Demonstration Agency (CDA), which is an arm of city government, receives federal funds directly without state intervention. This was perceived as an advantage which permitted the CDA freedom to develop a comprehensive plan with neighbourhood residents and local officials. While the concept was sound, some basic truths emerged to hinder its implementation. Although the CDA does develop its own plans, it must negotiate contracts with delegate agencies to carry out various projects. Frequently, established agencies, such as the local school district, are not enthusiastic about getting involved in CDA projects or having CDA become a partner in their operations. This feeling provides ample opportunity for building tensions between the CDA and other well-established agencies.

The New Jersey Department of Education, through its Division for Research, Planning and Evaluation felt that severe urban educational problems in the state's Model Cities could be mitigated by the broad and active co-operation of state and local education agencies. The Department of Education on Salett's initiative contracted with HUD to conduct a unique special pilot project to define a role for state education agencies in the "Model Cities" programme. Basically, the project, the only one of its kind in the nation, sought a way to involve urban school systems more fully into the "Model Cities" process; to serve as a source of programme ideas and technical assistance for "Model Cities" residents and professionals; and to improve communications between the State Department of Education and the inner-city neighbourhoods.

The Office of "Model Cities" began operation in June 1969 as a one-year pilot project designed to define the role of a state department of education in the "Model Cities" programme. The Office was granted an extension to February 1971 when HUD renewed the contract for one more year.

Marburger and Salett believed that the "Model Cities" programme had particular potential for New Jersey, the most urbanised state in the country. The federally designated Model Cities in New Jersey are Trenton, Newark, Hoboken, Paterson, Plainfield, Jersey City, Perth Amboy, Atlantic City and East Orange. School systems in these cities face the now "classic pathologies" of urban education: overcrowding, pupil transiency, substandard buildings and equipment, inexperienced staff, high drop-out rates, extreme fiscal constraints, outmoded curriculum, segregation, low achievement scores, lack of supportive services, rising unrest and dissatisfaction, and rigidities of structure.

Marburger, Salett, and J. Gerald Fitzgibbon, Director of the Office of Model Cities in RPE, felt that planning the education components of Model Cities could improve urban schools by bringing CDA residents and local and state professional educators face to face.

Benefits were expected to be multiple. With Department involvement and leadership, for example, it was expected that city school systems would participate more fully. The Department too would acquire a greater awareness of urban problems and would develop a realistic base for its own planning. This was an opportunity for the Department to examine its own role in urban centres and to develop increased ability to meet urban educational needs. At the same time the Department's own image would be enhanced with an emerging reputation as a strong service centre.

To implement these objectives, a field consultant model was designed. An urban education specialist experienced in inner-city education, planning and community organisation was assigned from the state education agency to work full time in each CDA. These specialists were assigned to work on site under the direction of the CDA Director. The Memorandum of Agreement between the Office of Model Cities and the CDA stipulated that the specialists in each of the Model Cities would act as grantsmen, develop education plans, and perform liaison functions between the CDA and local education agencies.

To provide back-up for the field consultants, a Department-based support staff was established. This central staff dealt with general problems like funding, the creation of innovative projects, and the reform of existing educational practices. In addition, in-house education planners analysed state plans with the goal of simplifying and making more pertinent state and local requirements in order to ease the implementation of "Model Cities" education plans, and to facilitate the flow of state funds into the "Model Cities". Department specialists in areas like federal funding, lunch programmes, vocational, bilingual, and early childhood education constituted a co-ordinating council to review and comment upon "Model Cities" plans and proposals and to provide information and special technical assistance to those involved in the projects.

In the past two years a number of programmes have been started largely due to the efforts of the field agents of the State Education Department. Mutual respect has developed between the CDAs and the local education agencies in a number of the "Model Cities" - although not in all. The Office of Model Cities reportedly has been effective in helping to establish this rapport. Through this Office, the Department has begun to acquire the reputation it sought as an agency which can help the cities through a field extension approach. An important element here is the assignment of a field agent or urban education specialist to only one "Model City", where he not only advises, but remains to live with the consequences of his actions.

At the end of a year of operation, opinions of Superintendents of Schools in eight "Model Cities" were solicited about the quality of the field services provided by the Department of Education. Questions dealt with the effectiveness of the efforts made by field agents as liaison between local education agencies and the CDA's, the degree of awareness of the State's role, and the effectiveness of its support to the field agents and the CDA's. Despite signs of tension in several cities between the CDA and the local educational agency, the Superintendents wished to have the state's urban education specialists continue to serve in their cities.

Officials in the State Education Department believe that particularly successful programmes have been operating in Hoboken and Newark. Nevertheless, although relationships are relatively good, they are quite fragile in nature even in these two cities. Relationships frequently vary from programme to programme and rapport must be continuously nourished. Field agents must constantly work in an environment of tenuous relationships between CDAs and local educational agencies.

They must continue to help projects become operational despite built-in tensions which constantly threaten to dissipate co-operative efforts.

An illustration of the significance of the Education Department's Office of Model Cities occurred recently when the Department of Housing and Urban Development was unable to fund the New Jersey State Office of Model Cities. HUD suggested that the local CDAs contribute some of their funds to the New Jersey Department of Education to ensure the continuation of its field services to the "Model Cities". All of the CDAs agreed except one which demurred on the basis of having already committed its funds.

Another kind of influence exerted by the Office of Model Cities is less direct. It has functioned as an internal advocate to see that "Model Cities" are granted funds or programmes for special efforts. The Office views itself as a watchdog and as the advocate for the cities in a state that in the past has not had a particularly notable record for meeting the needs of its large urban population.

The "Model Cities" in New Jersey have set aside approximately $3.5 million, or nearly 20 per cent of their supplemental funds for education. According to a report submitted by the Office of Model Cities on 15 April 1971 over 50 different education projects have been planned. Reportedly, more than half of these projects have now begun operating. A number of innovative projects have been launched with local school systems. The Education Department's urban education specialists in the "Model Cities" have been of material assistance in the development and implementation of many of these projects. In its already mentioned report of 15 April 1971 the Education Department's Office of Model Cities enumerates on a city-by-city basis (pages 6-8) the following education projects as accomplishments of the New Jersey "Model Cities" programme:

East Orange

A Day-Care Family Enrichment Centre was developed and $180,000 of Social Security, Title IV funds were successfully matched with $50,000 of "Model Cities" supplemental funds.

A Summer Enrichment Programme, using the multi-media approach, was developed and operated last summer. The programme has been refunded sufficiently this year by the Department of Community Affairs to continue some of its components through the 1971-72 school year.

Hoboken

A Career and College Services Programme for high school students, using counselling interns, was developed and has been successfully implemented with the LEA as delegate agency.

A Community Guidance and Scholarship Programme, focusing on the needs of the Spanish-speaking community, was developed and is operating successfully.

A Neighbourhood Education Centre, a Street-Academy type programme geared to assisting drop-outs and for training teachers and counsellor interns, has been developed and is nearing implementation.

Jersey City

The Elementary Guidance, Kindergarten Demonstration and Tutorial Programmes have been successfully implemented.

Newark

A Classroom Innovation Project, to supplement the State's Minigrant Programme, was designed and implemented. It includes the selection of an awards committee to assure community participation. The Project has been expanded for the second action year to include parent and community participation in the formulation of each project submitted for funding.

The Staff Development Programme was developed and has been implemented. It is a bold, in-service teacher-training project that utilises the Hilda Taba teaching strategies which are designed to enhance cognitive development. This programme is an example of joint Department of Education-CDA development.

For the $775,000 Model Schools Programme viable planning committees composed of teachers, administrators, parents and community members were established in each of the five schools to develop plans that would meet the particular needs of each school. The contract has been successfully negotiated with the LEA, and four of the schools have implemented their plans.

The second action year plan has been developed and includes the establishment of an Office of Programme and Staff Development in the Newark Board of Education. The Office will provide the necessary support to the Model Schools Programme, develop new and support existing staff development projects, and develop new school programmes through a school/community planning process.

Paterson

The Mother-Child Home Programme has been launched and provides at-home instruction in early childhood education methods for mothers of infants. The programme's career ladder component gives the mothers an opportunity to become teacher/social-work aides in this or other early childhood programmes in Paterson.

The Incentive Demonstration/Guaranteed Performance Programme has been implemented in the Model Neighbourhood elementary schools. Awards will be given to the schools that show the greatest improvement in achievement levels. Teachers, administrators, students, parents and community members assisted in the development of criteria for measuring the achievement and for deciding how the award money is to be used.

Perth Amboy

Eight education projects have been developed and are undergoing negotiation with the delegate agencies. The projects include teacher-training and career development in early childhood education, bilingual education, a storefront college and community guidance, among others.

The Day Care 100 Centre has been planned and $30,000 of supplemental funds have been successfully matched with $45,000 of Department of Community Affairs funds.

Plainfield

The Demonstration School Project, which is the comprehensive education component of the Model City Plan, has been planned as a five-year experiment with a wide range of curriculum and programme changes. It will be administered by the Board of Education with the assistance and participation of Model Neighbourhood residents and several community agencies.

Trenton

A wide range of education programmes have been implemented, including K-12 guidance and bilingual education in the public schools, the Career Development Programme for teacher-aide training, outreach guidance and Day Care 100.

The CDA has been instrumental in attracting to Trenton a number of federal programmes including HEW's Urban/Rural Schools, Adult Education, and Drop-Out Prevention Programmes. The Trenton "Model Cities" provides an excellent example of the use of supplemental funds as seed money to attract other funds.

As a further effort to carry out the commitment of the Department to provide additional help for the cities, the Model Cities Office, as was discussed in an earlier section, has engaged in an exhaustive analysis of the Department's system of allocating funds. By a careful examination of the laws and guidelines of 12 major federal categorical grant-in-aid programmes, the Office of Model Cities has ascertained that the Department has heretofore unused powers of discretion which if utilised will give far greater impetus to its efforts to implement urban educational priorities.

Recognising the length of time it would take to produce major changes in the state aid formulas and to activate a decision-making apparatus within the Department for reapportioning funds to the cities on a broad scale; and recognising the resistance to change that was evident within the Department itself as plans to reallocate resources took shape, the Commissioner recently sanctioned the aforementioned "earmarking" strategy. "Model Cities", the reader will recall, is the central vehicle for this effort; an effort that is replete with political hazards and yet provides the Commissioner with his best and perhaps only short range opportunity to channel additional resources into New Jersey's cities. On the basis of "fair share" pledges received by mid-April 1971 it is estimated that "Model Cities" may realise an increase of $2.5 million in education aid. "Model Cities", then, it is hoped, will provide the cutting edge of urban educational reform.

Thus, the "Model Cities" project is now a major, if not the major, component of the Department's urban thrust. The "Model Cities" programme has provided the Department with a far greater outreach capacity and much insight into the needs of depressed urban areas. The Department, through the HUD contract, has been able to provide services to urban school systems and to reassess its own role and responsibilities in urban education. In brief, its supporters claim that the "Model Cities" programme has had a strong impact on the Department of Education itself as well as on New Jersey's urban centres. Indeed, if the "earmarking" strategy is successful and large portions of the major federal categorical grant-in-aid programmes are actually reallocated to "Model Cities", one could make the claim that the project has not just influenced but actually revolutionised New Jersey's Education Department.

This unique attempt by a once non-urban-oriented state educational agency to play a more active role in city school systems is a prototype programme which is being watched with interest throughout the country. Indeed, top staff of the "Model Cities" project have served as consultants to other state education departments around the nation. Four other state educational agencies have received HUD contracts to establish similar programmes.

Some critics would say that greater efforts have been made to diffuse the Project outside the state than within the state.

Despite these achievements ascribed to the "Model Cities" project and its very central position as a vehicle for urban reform, this innovative activity, according to some sources, suffers from the same invisibility that afflicts other programmes of the Division of Research, Planning and Evaluation. A surprising number of educational leaders in New Jersey at both the state and local levels simply have no idea that the "Model Cities" project even exists. There seems to be great ignorance about "Model Cities" in the Education Department itself. Even those educational leaders who would philosophically agree with the "Model Cities" project's rationale and applaud its efforts, are just not informed about its activities. Thus, information about the existence of one of the Division's major programmes in the Commissioner's urban thrust has not been widely disseminated. Some would say, however, that criticisms of ostensibly ineffectual efforts made thus far to disseminate the "Model Cities" project are unfair and unfounded. The Project, they point out, has been in existence only a short time and there has been so far virtually no educational innovation per se to disseminate. Most of the work has been in the areas of planning and development.

Thus, despite the "Model Cities" developments that have been described in the foregoing pages, there is still a substantial segment of the education community in New Jersey which feels that the Department has made few or no substantive educational improvements or changes in the cities.

The Educational Improvement Centre (EIC)

Thus far in this study on almost every issue, a wide range of opinion has been expressed about the Department's activities. The Educational Improvement Centre (EIC), however, is unique in New Jersey and is called a "great success story". It appears to have the strong endorsement and enthusiastic support of almost everyone interviewed. What is the EIC and how can any experiment win almost universal praise in a state as divided on educational issues as New Jersey?

The EIC is, in essence, New Jersey's first regional centre. It serves the eight southern, primarily rural, counties of the state. As an intermediate unit situated between the State Department of Education and local school districts, the EIC provides planning and development services and conducts activities in co-operation with the public, private and parochial schools in its region. It focuses upon the improvement of education in its service area. The EIC operates under the aegis of the Division of Research, Planning and Evaluation and is funded primarily through Title III of the federal Elementary and Secondary Education Act of 1965.

The original concept for a regional education unit was developed by some local and county superintendents, Glassboro State College faculty, and others interested in strengthening educational programmes in southern New Jersey. These initial efforts to provide extra services to small districts were buttressed and supported strongly by the Education Department; more specifically by Robert Ward, the Director of Programme Development in RPE. Ward, incidentally, is regarded by some as one of the Education Department's "prime diplomats." He was a member of the Division of Curriculum and Instruction prior to Marburger's arrival and was subsequently transferred to Salett's new unit. Ward has served as a link between the "old" and "new" regimes both within and outside the Department. Many feel that he has performed the function admirably and was a key "behind the scenes" catalyst in the development of the EIC.

Ward, whose Office of Programme Department was responsible for Title III administration, along with others in the Department in their analysis of Title III proposals noted the disadvantages faced by smaller, poorer districts in the competition for funds. More affluent districts in northern New Jersey, for example, had the necessary ancillary staff to write quick and impressive proposals. The smaller, more rural districts, particularly in the southern part of the state, lacked this capacity. Marburger, Salett, Ward, and others in the Department strongly supported the local efforts being made to build a regional mechanism that would upgrade the ability of school districts in the southern counties to prepare proposals and generate new programmes. The Division of Research, Planning and Evaluation thus played an instrumental role in making possible the creation of the EIC.

It is interesting to note that the strategy employed by the Division in promoting the EICs development differed from many of its other attempts to generate educational change in New Jersey. The Division, in essence, worked co-operatively with the "educational establishment" and the EIC concept became a viable reality because of the strong local and regional support it received. Members of the Department in commenting upon this strategy note that it is relatively easy to work with small homogeneous school districts and regions which have similar needs and goals. They point out that it is much more difficult to build co-operative and meaningful local-state relationships in more populous areas of a heterogeneous state like New Jersey. The history of the Urban Schools Development Council, another activity of the Division which will be discussed briefly in the next section, would seem to bear this point out.

The EIC is considered by many to be the Division's single most important activity. Building on its strong base of support at the local and county level, the EIC reportedly is doing much to stimulate educational change in southern New Jersey. A Board of Directors was created composed of county and district superintendents, principals, lay people and representatives of higher and private education. It employs the Director who, with his staff, is directly responsible to the Board.

After some early changes of Directors, John Rosser, a former assistant superintendent in southern New Jersey, was named Executive Director. The county superintendents reportedly were instrumental in Rosser's selection. Under his leadership the EIC began to assume a broader role than originally envisioned. Not only did it help in proposal-writing for grants, but it also identified other needs and priorities within the eight counties. It developed staff capabilities in the areas of individualised instruction, minority and migrant worker group culture, early childhood education, evaluation of environmental education, special education and in-service training. By providing direct and expeditious services and by indicating a general responsiveness to the needs of local education agencies, EIC has within a few years established an excellent reputation among all segments of the community it services. The Director and staff are in the sensitive and somewhat ambivalent position of being part of the State Department of Education and at the same time being responsible to a regional board. Under the Director's leadership, however, the EIC has established its independence as an agency whose principal priority is to help local districts in any way it can to strengthen education in south Jersey. This has meant lobbying at the state level for local needs or when necessary defending state policies to the local districts. The EIC has enhanced its credibility and position as a change agent by developing new managerial procedures and applying them to improve its own operations as well as advising others on such usage.

A significant element of its strategy, which has brought favourable recognition and acceptance of the intermediate unit concept, is the EIC's willingness to deal with the immediate problems faced by a school district. Response is direct and prompt. The unit has proved itself to be more than another regulatory agency or "think tank". It is a supportive unit which provides direct services. This has encouraged administrators to be more receptive to new educational ideas and long range planning with EIC assistance. Some view the EIC as a mini-state department because of the varied services it provides.

Among its services the EIC at Pitman has worked with non-education groups. For example, the organisation representing the state's business and industry, the New Jersey Manufacturer's Association, was interested in the educational product (the student) whom they received as employees in the private sector. The Association claims that its membership contributes 60 per cent of the money spent on education in New Jersey, and its constituents are interested in evaluating the effectivensss of the educational system. The EIC gathered data and led representatives of the Association through the complex processes of evaluating educational outputs as distinguished from industrial productivity which can more readily be assessed in terms of financial profits and losses. This EIC activity reportedly resulted in the Association requesting the Governor to invest more money in technology at the elementary school level.

The EIC also has provided services in special education. Teaming up with parent-teacher organisations, the EIC developed a survey instrument to ascertain the potential number of handicapped children who would be entering schools in the southern counties. The parents conducted a door-to-door survey using questions which identified children who had actual or potential handicaps and/or learning difficulties. The tangible results were: (1) names were gathered of children who were to be tested prior to their entry into the schools; (2) an information base for projecting and planning needed services and facilities was made available; (3) community interest was raised to such an extent that parent groups are now pressing for a similar survey to be conducted in central New Jersey.

A typical EIC service to an individual school district would have its initiation with a request for assistance from a local school superintendent. In one case, for example, an administrator needed help in the development of a building programme. The EIC brought together professional and community advisory groups by identifying all those people who should be involved. The EIC helped in the development of goals, enrolment projections, building sites, and a suitable type of school organisation. After its initial steps of providing technical assistance and helping local people build their own secure base, EIC reduces its role as the local community gradually assumes complete responsibility for implementation. The first rule of EIC is not to impose its ideas on the local groups requesting help; the second rule is to practise what it preaches.

The success of the EIC has generated some pressure to establish two analagous regional units to service the northern and central sections of New Jersey. The EIC thus serves as a model for other possible intermediate units. Some envisage a network of these units across the state with an exchange of services made available as various local district needs arise.

The EIC provides an effective interface mechanism through which local, county and state educators can interact and complement each other. The EIC has staff available for developmental tasks; staff that is freed from the customary constraints and day-to-day tasks of local school district operations. Programme research and development expertise is thus available either through the EIC staff itself or through outside consultants who can be hired by the regional unit to perform specific functions. The EIC does the developmental work on new programmes and the school districts then assume operational responsibility.

The EIC thus has become a valuable vehicle for piloting experimental programmes. Many observers have been astonished to discover how "wide open" and liberal the alleged conservative counties of rural southern New Jersey have been; their receptivity to educational experiment, then, is quite a tribute to the strong local and regional base of support that the EIC has been able to develop.

Proposals have been made that the EIC should come directly under state control so that its activities as a prototype regional centre could be planned more systematically for statewide consumption. Even members of the Education Department oppose such a move. They and others feel that more would be lost than gained if the EIC became part of the state agency. If, for example, the EIC was run from Trenton it would lose much of its fiscal autonomy and programmatic flexibility. The regional unit would be constrained by the relatively rigid line-item budgetary procedures which characterise state operated programmes. The EIC's freedom to innovate could well be hampered by such restrictions.

Also, state absorption of the EIC would sacrifice valuable community control dimensions. The local-regional-state interface which has been such an instrumental factor in the EIC's success might well be weakened. The direct or face-to-face interaction between EIC personnel and local school people, the heart of the regional concept, could be lost if the programme was centrally operated as a line-item in the state budget.

Some observers of the New Jersey scene contrast the overwhelmingly favourable response to the EIC with the education community's somewhat more restrained, if not negative reactions, to other programmes that have been developed under the aegis of the Division of Research, Planning and Evaluation. They point out that successful changes can be implemented in New Jersey if the Education Department co-operates with local and educational officials. Implicitly, if not explicitly, Marburger and Salett's perceived strategy for educational change on projects other than the EIC is criticised by some sources. Their usual strategy, critics contend, characterised by confrontation, unilateral state initiatives, and lackadaisical communication and dissemination processes, dooms many of their programmes to failure. Detractors reiterate that genuine innovation can occur only with the approbation and involvement of local and regional officials and citizens.

There are those who disagree strongly with this point of view. They contend that what might have been appropriate and logical tactics for the Department to follow in the case of the EIC, which services a homogeneous rural area of the state, are inappropriate for other more urban-oriented activities like the Urban Schools Development Council (USDC).

The New Jersey Urban Schools Development Council (USDC)

The USDC was funded under a Title III grant of the Elementary and Secondary Education Act of 1965, with the Elizabeth Board of Education serving as the funding conduit. The USDC is a consortium of institutions designed to promote and co-ordinate common approaches to urban educational problems. In effect, it is an educational coalition of the ten largest cities in New Jersey. Its Board of Directors includes the school superintendents of these ten cities (Atlantic City, Camden, East Orange, Elizabeth, Hoboken, Jersey City, Newark, New Brunswick, Paterson and Trenton), the New Jersey Commissioners of Education and Community Affairs, the Chancellor of Higher Education, representatives from the New Jersey Catholic Conference and the State Association of Private Schools, two presidents of member school boards and thirteen minority group members.

The USDC was in existence prior to Commissioner Marburger's arrival in New Jersey. The Commissioner has continued to support the organisation despite apprehensions about its viability that will be discussed shortly. The USDC is linked with the Education Department's Division of Research, Planning and Evaluation as a Title III pilot intermediate unit.

The USDC is designed to serve as an agent of change through its research, programme development, evaluation and dissemination efforts. The USDC document, Educational Issues and Answers describes its role as follows:

> The council's basic function is that of a service-change agency created to bring about significant improvements in the quality of education offered in New Jersey's Urban School districts. To accomplish this enormous task involves the council's ability to mobilise societal resources in order to appropriately respond to the major problems confronting our urban districts. Consequently, the council was formed with a five element task force structure to achieve the maximum level of effectiveness. The task force teams are: (1) Research; (2) Programme Development; (3) Evaluation; (4) Dissemination; (5) Diffusion.
>
> The Research Team has the responsibility for collecting, correlating, and organising data into a research resource bank for urban educators. In addition the team is charged with the tasks of developing a comprehensive human resources file, periodically assessing each district's specific needs, and providing in-service training for local district personnel.

The Programme Development Team has the responsibility for designing plans for the organisation and management of pilot programmes. Accordingly, they must explore such areas as objectives, feasibility, cost, and management. Members of the team also function as consultants and resource personnel to assist local organisations engaged in similar activities.

The [illegible] Team has as its chief responsibility to continually [illegible] objectives of the Council and propose pilot programmes. Hence this team must develop systems and instruments to measure the outcome of programmes. As a result, it must work in close co-ordination with the local districts in evaluating and training personnel for on-going projects.

The Dissemination Team has been charged with the responsibility of developing a multiple axis communications system with a capability of processing countless varieties of information directly affecting urban educators. Included in the scope of this team's activities is the task of keeping abreast of legislation of crucial importance to urban education.

The Diffusion Team has as its primary pursuit the task of overseeing the development of strategies for implementing change. This necessitates the direct involvement of the team with local districts in the co-operative venture of instituting changes in school programmes.

Based in Trenton, the USDC has an eight member professional staff and currently operates programmes which include among others the development of bilingual language learning centres, the provision of systems management in-service training programmes and other technical assistance for administrators, the co-ordination of summer institutes on curriculum, the creation of a pilot project in juvenile guidance for school drop-outs, and the exploration and examination of legislative alternatives in the urban education field.

The USDC, as an intermediate unit supported by Title III, should in many ways parallel the EIC. The problems of the cities, however, are far more immediate, complex and intractable than those of the more placid southern counties of New Jersey. Urban problems are just not as amenable to the consensual political processes which have made the EIC so successful. Each of New Jersey's major cities has its own political labyrinth and entrenched vested interests. The USDC has found it very difficult to serve as a co-ordinating agency. Each city prizes its autonomy and competitively strives for its "piece of the pie." It is reportedly difficult to get the cities to act in a unified way on common problems; for example, inter-city co-operation has not been notable even in the efforts that have been made to acquire a more equitable distribution of resources for urban centres.

Critics of the USDC feel that the Council's innovative efforts have been blunted by the professional educators who dominate the organisation. Reportedly, the ten superintendents of schools control the organisation and ardently protect the autonomy of their individual districts. Further, it is alleged that the administrators' proclivities are conservative and defensive of the institutions they manage. Many, it is charged, wish to protect and maintain the educational status quo, which some critics contend is intolerable because of the dismal failures of city school systems. The USDC reportedly has had little impact on minority groups and others in the inner city because the latter has no intention of being co-opted by "establishment dominated organisations" which articulate "change rhetoric" but do little.

Its critics maintain that the USDC would improve communications with the inner city people it purports to serve if its perspectives were broadened by more meaningful community participation in its decision-making. Unlike the EIC, which capitalises on the inputs of a very broadly gauged lay and professional advisory group, the USDC, it is contended, is dominated by educators who "play things close to the vest."

The USDC is a disappointment to many in the Education Department who feel that it has great potential as an arm of the state to promote badly needed changes and reforms in urban education. Some of those who are critical of the USDC say that they are cognizant of the difficulties of mobilising disparate communities in densely populated urban areas. They grant that there are tremendous problems confronting any organisation that attempts to realistically assess and improve school systems in the political milieu of New Jersey's cities. A feeling persists, however, that the USDC has been quite ineffective even if one acknowledges these very real and perhaps uncontrollable deterrents to its success. Critics contend, for example, that the USDC showed little interest in the "Model Cities" project and similar efforts to ameliorate urban problems.

In a recent evaluation (February 1971) of the USDC project, the Division of Research, Planning and Evaluation produced a rather dismal assessment of the USDC's current programmes and practices. This evaluation was coupled with a sharply worded recommendation for a USDC "rebirth" or "timely demise". A generous portion of the evaluation's concluding statement is reproduced below because it not only describes the shortcomings of the USDC but it also encompasses a message that reflects a philosophy of change which typifies the approaches to educational innovation undertaken by the Education Department, and more specifically RPE:

> ..."The decision to require that all major decisions at the Council (USDC) be approved by a Board of Directors made up primarily of the Council's 10 target cities, doomed the Council to the state of ineptitude and mediocrity witnessed by this evaluation team. The fact that the Council has failed to establish meaningful priorities and mount comprehensive programmes to realise these priorities cannot be considered to be entirely its fault. By refusing to let the Council conduct a needs assessment survey at its outset, the Board of Directors preordained that 'their' council would be another impotent agency in the war against educational mediocrity in the state.
>
> Consequently, the Council has adopted a low profile role in the State, providing technical assistance to its member schools when requested, and developing limited projects of its own which were not expected to 'rock' the precarious urban 'boat'. Occasionally, it was sidetracked by the State Education Agency to serve as a political arm in a way that would not threaten the 'Big Ten'.
>
> The Council has generated an avalanche of documents which are not likely to add up to meaningful educational change. Its internal failures bespeak of a timidness, precipitated in part by its tenuous lease on life and the tenacity of the established order to resist change.
>
> Our recommendation is that the council experience a rebirth or a timely demise. If the educational leaders of the urban communities in New Jersey resist enlightened help in restructuring their educational systems such as a number of urban mini-councils might provide, they may have to pay the consequence in the future. It is the responsibility of State leadership to see that enlightened help is available and guarantee that it will be utilised

> ("through the use of legislation, if necessary"). Starting out with power to affect meaningful change, Urban Councils can be designed with appropriate management, monitoring, and evaluation systems to be useful."

Many educators and others who have worked with the USDC would take sharp exception to this assessment of its operations. Defenders of the organisation would contend that its role has been necessarily circumscribed by the political environment in which it must exist. Localism in New Jersey extends "with a vengeance" to its cities, and the USDC, which was created as a service agency, only has the power to do the things which its constituent members want it to do.

Those who support the USDC thus say that many criticisms levelled against the organisation are unfair. Comparisons with the EIC are particularly invidious; "it's like comparing apples and pears" according to those who are supportive of the USDC.

The USDC, it is maintained, has performed well considering the very fundamental limitations which constrain its activities and the precarious political position it is in vis-à-vis its member cities. The USDC's Division of Evaluation, for example, has produced a wide range of documents dealing with subjects like minority group curriculum guides, summer science, mathematics, and language arts programmes, individualised instruction, reading tests, educational accountability and so forth. The USDC's Division of Evaluation, according to its "General Information Document 9", has provided aid to local schools in the form of "direct technical assistance, individual presentations, workshops, and conferences. The Division of Evaluation has provided services to New Jersey School Districts in the areas of proposal development, behavioural objectives, evaluation design, instrument development and selection, and data analysis and interpretation."

The Division of Evaluation of the USDC also claims to play a significant role in the activities of the Education Department:

> The Division participates on the Commissioner's Co-ordinating Council on Evaluation, the Commissioner's Task Force for the Implementation of the Revised School State Aid Formula, and serves as Field Consultants in Evaluation to the Division of Research, Planning and Evaluation, as Project Expeditors for ESEA Title III projects, and has served as team captains for Title III State on-site evaluations. In addition, the Division

has held the responsibility for the administration of Title III State on-site evaluations and for the training of on-site evaluation personnel. The Division has also assisted the state in the development and review of Title III proposals.

The USDC and the EIC thus have very different constituencies and somewhat different objectives but also share much in common as intermediate unit approaches to educational organisation and innovation. Both organisations are designed to provide the capability on a multi-district basis to perform developmental tasks critical to educational improvement. Built into the goals and design of both units is the promotion of co-operative participation by local, county, and state educational agencies in decision-making; access to federal, state and local monies; organisational flexibility permitting prompt response to the needs of local districts; and area management patterns which are "product oriented" and subject to programme accountability methods. Despite these similarities and their commonality as Title III projects operated by the Division of Research, Planning and Evaluation, the history of these innovative efforts is very different. The EIC, as has been noted, is generally regarded as being very successful. Conversely, the USDC had, in the judgment of many, only limited success and, indeed, ceased functioning as of 1 July 1971. (Author's note: As of 1 September 1971 a new Office of Urban Education was created within the Department's Division of Curriculum and Instruction. The plan is to co-ordinate within this office various urban-oriented state and federal programmes such as "Model Cities" and appropriate ESEA titles.)

Our Schools

On 17 February 1970 the New Jersey State Board of Education authorised the formation of a broadly representative Advisory Council on Needs Assessment. This was very much in line with Commissioner Marburger's philosophy of encouraging greater citizen participation in the determination of goals, priorities and progress for the public schools. Among its first acts, the Advisory Council recommended the launching of a programme which would have as a basic principle extensive citizen participation in the identification of long-range educational goals for New Jersey.

The Division of Research, Planning and Evaluation was given the responsibility for initiating a programme which would involve a broad spectrum of citizens of New Jersey in the development of relevant goals for their schools. This long range educational planning and development was to encompass pre-school, elementary, secondary, vocational and adult education. The project was designated "Our Schools". It is directed by Bernard Kaplan, Director of the Office of Planning in the Division of Research, Planning and Evaluation.

To ensure extensive citizen participation, plans were formulated for an initial state-wide conference on the goals of education. Following the opening conference in April 1970, which was attended by about 100 participants and observers from all parts of the state, a second, similar meeting was held to continue work on developing goals. Following these conferences, regional and local meetings, structured to maximise the participation of a broad cross-section of people, were held during 1970 and 1971 throughout the state. These meetings focused upon the development of goals not only in the light of state needs, but as a response to particular local requirements as well.

Three other parts of "Our Schools" are now in the planning stage. In the spring of 1971 a state-wide survey of public opinion on educational goals will seek to find out how the general public feels about the ideas that have emanated from the state, regional and local conferences and how the public sets its priorities for action. After the last local conference has been held, a Governor's Conference on Education late in 1971 will seek to synthesise the results of the "Our Schools" programme into a comprehensive statement about educational goals and policies for ultimate adoption by the New Jersey State Board of Education. Following these steps, the Department of Education will organise a series of meetings of educators and other citizens to discuss curricula, teacher-training programmes and instructional practices which can best be used to achieve the goals adopted.

While there are few today who would argue the merits of convening a broad based group of citizens to discuss the aims of public education or even to develop a set of educational goals for the schools, there have been some negative reactions. These reactions to the programme reflect some of the same differences in perspective and administrative style which precipitated other clashes between the Education Department and many of New Jersey's professional educators.

The New Jersey Education Association, for example, in an editorial that appeared in the April 1971 issue of its journal, NJEA Review, warned of "disaster ahead" if the Commissioner continued to rely on the "Our Schools" project as a source for determining State objectives. The article cites a lack of advance publicity for meetings, poor attendance and fewer sessions than had been planned. Professional educators had been somewhat resentful of the project from the outset because of their alleged exclusion from the early state and regional meetings. The planners of the programme did not want the various meetings to be professionally dominated and thus stressed lay participation in the organisation and implementation of the sessions. The educators were concerned about the Education Department bypassing them. To them it just did not make sense to minimise the involvement of teachers and administrators who would have to implement the educational goals that were to be developed.

The "Our Schools" project is criticised by some as lacking direction and co-ordination. The project, allegedly, is "fuzzy" in the minds of many. Despite some ambitious attempts to disseminate information, "Our Schools" is relatively unknown. Even with statements of support from Governor Cahill, news releases, television clips, widespread mailings, and numerous meetings throughout the state, the project has not caught on". Many professional educators feel "left out". [illegible] basic weakness of "Our Schools", critics contend, is the Department's failure to utilise the services of teachers and administrators at the state and local level.

Some county superintendents, for example, are reportedly "dragging their feet" because the "Our Schools" regional meetings were not organised on county lines. Following these complaints about the exclusion of teachers and administrators from the goal setting process and poor attendance at "Our Schools" meetings in some areas of the state, the project's approach seems to have been somewhat altered. At the time of writing, it appears that greater efforts are being made to involve professional educators and others more directly associated with schools. Teachers, administrators and Parent-Teacher groups are now being encouraged to participate to ensure better attendance and successful meetings at the local level.

Thus, the "Our Schools" programme has engendered additional controversy over educational issues in New Jersey. Commissioner Marburger and his top staff, some critics feel, are using the project as a façade for implementing their own pre-conceived plans and "grand strategy" for education. There is, some sources report, an "air of mistrust" about the programme which is resented as being centrally imposed by the Education Department. A more extreme point of view was taken by at least one candidate for a seat on a local board of education who charged that the programme threatens local control of school systems. He claimed that it was "another attempt by the State of New Jersey to take control of our local schools", and he exhorted the parents of his community to take a hard look at it, stating "our children should not be subjected to experiment or any untested programmes."

Critics of the "Our Schools" programme emphatically point out that their opposition is not to what is being done (citizen involvement, etc.), but to the way it is being done. The project, in their estimation, illustrates well the Commissioner's continued lack of understanding of the way in which things get done in New Jersey. Localism and fear of state control is pervasive and the imposition of ideas and programmes "from the top" will simply not work.

On the other hand, there are those who feel that the foregoing criticisms are unfounded and reflect the defensiveness of New Jersey's "entrenched change-resistant educational establishment." Defenders of the way in which the "Our Schools" project has been operated contend that it is incorrect to say that professional educators have been excluded from its activities. The planners of the programme simply wanted to ensure meaningful citizen participation; the educators know how to inject their inputs through their organisations and day-to-day activities.

The state's major educational organisations, it is pointed out, are represented on the Advisory Council on Needs Assessment, the body that has been guiding "Our Schools" since its inception. Representatives of the following organisations, bodies and/or agencies are members of the above-mentioned Council: State Board of Education, New Jersey Education Association, New Jersey Congress of Parents and Teachers, New Jersey Association of School Administrators, New Jersey School Boards Association, the State Advisory Council for Title III, and the New Jersey Federation of Teachers. Several students are also members.

Proponents of the way "Our Schools" has been structured, then, would disagree with those who contend that it is Department-dominated. Through the Advisory Council on Needs Assessment, which sets policy for the Department staff to follow in implementing the project, the various educational groups are assured of representation in the deliberations which will influence the development of the programme. Criticisms that the project lacks direction or leadership are regarded as being unfair. The project's major purpose of eliciting maximum citizen participation in the generation of educational goals would be defeated if state officials played a more controlling role.

Defenders of the Department's strategy also point out that the same individuals who attack "Our Schools" as a poorly administered project would be the first ones to suggest that local control was jeopardised if the Division's staff tried to provide more assertive leadership.

Despite the adverse reactions of some organisations and individuals, the "Our Schools" project at the time of writing this continues to move along. Since the programme is still developing and many of its phases have yet to be completed, judgments concerning its effectiveness are difficult to make. In any event, the programme by definition, has an evanescent quality. The project's basic purposes and processes, the development of general educational goals by a broad cross-section of people, almost have to be cumbersome, detailed and somewhat spongelike. The educational goals produced by "Our Schools" will have to be fluid and ever-changing to reflect a society in constant flux.

The programme is particularly timely and will become increasingly more important in New Jersey because of the state legislature's passage in 1970 of the Bateman Act. (Bateman is the name of a New Jersey state legislator who chaired a Commission studying state aid to education. This Commission's recommendations provided the basis for the subsequently enacted "Bateman Act" of 1970; Chapter 234, Laws of 1970). Without doubt this is potentially the most important piece of legislation enacted during Commissioner Marburger's term of office. Not only is this law directed toward local improvement of educational programmes, a significant step for New Jersey as a first legislative attempt to build accountability into schools, it also can have a profound influence on legislatures and school systems in other states.

Specifically under Bateman, incentive payments may be made to school districts by the State Department of Education for efforts made by districts to improve the quality of their educational programmes. The Act specifies five levels of quality - Basic, Limited, Intermediate, Pre-comprehensive and Comprehensive - with payments to districts increased as they progress from step to step, based on criteria to be set by the State Department of Education.

Underlying the legislation is the philosophy that public school systems in New Jersey will direct their efforts toward bringing each child to his level of potential based on objectives which meet the state's, the community's and his own individual needs. The educational plans for a district must be developed accordingly with the individual child and his needs as the chief consideration in the planning and evaluating processes. This focus on individualisation provides a built-in mechanism for continuous change. A quality district, therefore, is one in which each child is making his way towards each objective at his own level of potential.

The genesis of the Bateman legislation pre-dated Commissioner Marburger's arrival in New Jersey. Since Bateman's passage, however, the Education Department has played a more direct role in determining criteria for its implementation. Staff members of the Division of Research, Planning and Evaluation have worked with the Bateman Steering Committee, broadly representative of New Jersey's major educational organisations, in the development of criteria for the implementation of the Bateman Act.

Immediately after passage of Bateman in 1970, the Commissioner created the seventeen-member advisory committee - the Bateman Steering Committee - to study ways to revise the state aid formula and to devise criteria for apportioning funds consonant with the requirements of the statute. To the Committee were appointed representatives of major state-wide educational organisations and selected administrators; to some critics an indication that the Commissioner was learning to work more effectively with educators. While some members were supportive of Marburger policies, there were a number who continued to oppose the Commissioner. Nevertheless, the Committee early in 1971 did arrive at a series of recommendations which were duly delivered to the Commissioner. Some participants at the time of writing are still not in agreement with the Committee report. They feel the criteria will be ineffective and that the proposed classifications under which school districts would receive aid will break down under political pressures. In any event, there is now enacted for the first time in New Jersey a statute with the potential for institutionalising change, although the funds implementing Bateman have yet to be appropriated by the legislature.

Of significance, also, is the opinion of critics of the Commissioner that for the first time he has sincerely involved educators, even if they were not his political or philosophical allies. Members of the Bateman Steering Committee were convinced that their mandate was legitimate, sincerely instituted by the Commissioner to arrive at needed solutions. "It was not", in one ardent critic's words, "the usual facade" which Marburger created to carry out his preconceived ideas. Comments from several participants and observers indicate that the feeling even in "establishment circles" was that

Marburger truly wanted assistance on an issue of such importance, "really turned them loose to work on the problem", and was "quite pleased at the help he was given." Indeed, according to some sources, the Department staff, which worked directly with the Committee in developing the proposed Bateman criteria, surprised many of the state's educators with their emphasis on localism. Originally the Bateman legislation focused on state determined criteria, but the Committee's criteria were structured to emphasize accountability at the local level. This emphasis on individual school district plans reportedly was strongly supported, contrary to what many might think, by the Departmental staff participants in the Committee's deliberations. Department members were also instrumental in ensuring that the Bateman formula incorporated special weightings for urban school systems with AFDC students (Aid for Dependent Children).

The "Our Schools" programme, as it evolves, will inevitably become confused with the Bateman criteria because their objectives are complementary despite Departmental assertions that the two are discrete projects. Because of the accusations that "Our Schools" was merely a façade to legitimate the Commissioner's plans, the Department, for political if not substantial reasons, has made special efforts to distinguish carefully between the "Our Schools" project and the Bateman legislation. Nevertheless, it is patently clear that the ultimate recommendations of "Our Schools" will interface in a very timely way with the impending implementation of the Bateman legislation. Under the latter each district that wants state aid will have to include goals in its plans and will have to describe for the Department in its application the nature of local involvement in developing these goals.

Although the "Our Schools" goals will be state-wide and Bateman will stress local district development of goals, there will be a constant need for clarification of the two. Theoretically, at least, there will be a relationship only if local districts decide to use the adopted state-wide goals to help them develop local goals. It is projected that the New Jersey State Board of Education may adopt the goals developed by the "Our Schools" project late in 1971 or in early 1972; implementation of Bateman criteria is not expected until the 1972-73 school year at the earliest. At the time this was written the complicated criteria issue was fraught with political implications and the date for implementation of the Bateman proposals was very uncertain.

Chapter IV

SOME CONCLUDING STATEMENTS

As was stated in the preface, the data gathered in this study do not permit an objective comprehensive assessment of the Division of Research, Planning and Evaluation's success or failure as an instrument for educational change in New Jersey. These concluding comments are not intended to serve as a final summary or review of the findings in the traditional sense. They hopefully will synthesize, however. some valuable insights into the change process at the state level in American education; an area of study which has been pitifully neglected in the past.

Although the emphasis in the case study has been on the development and activities of RPE, the following will focus upon the transcendent role played by Commissioner Carl Marburger as an educational change agent. As the text has stressed, the Division's activities were inextricably linked with the Commissioner because of his unique relationship with Stan Salett. Thus, RPE's history as an agency for change is based heavily upon the administrative strategies and style of the Commissioner.

Many of the interviewees in New Jersey, including both admirers and critics of Carl Marburger, assert that the Commissioner would act differently as a change agent if he could relive his first years in office. They contend that the Commissioner would have built up a broader constituency and base of support before directly challenging the state's fundamental educational modus operandi. Marburger's recent visits to administrators' meetings and other efforts to cultivate stronger grassroots understanding and support are cited as examples of his realisation that the only way to implement permanent change successfully is through co-operation with local educational officials; in New Jersey, it is emphasized, nothing happens through state mandates.

One who holds a position of leadership at the state level must realise that New Jersey is a "closed society". It is a small compact state whose educational interests are tightly organised. Communication is immediate and a leader, it is contended, must work with local educational officials and state organisational leaders who "can push a button" and make things happen very quickly. New Jersey, in other words, is a particularly difficult state for a leader recruited from outside. Many believe that a new Commissioner of Education, or any other state official who wants to serve as a change agent, must build local confidence and a climate of support before implementing innovations.

Some critics note what they believe to be a change in Commissioner Marburger's style of leadership. He now comprehends, they maintain, that localism, if appropriately nurtured, can be a positive as well as a negative force. Changes simply do not occur by "hitting people over the head". Some critics assert that Marburger, although he still lacks the confidence of many "rank and file" educators, has become more cognizant of the facts of political life in New Jersey. All agree, however, that educational reform is a slow process even with the most sensitive and masterful political strategies.

New Jersey's chief state school officer as a public official cannot be equally successful as both a reformer and an ideologue. A college professor, Marburger's less ardent admirers point out, can be an ideologue as he is not responsible to a diverse public constituency. A Commissioner of Education, however, must be more than a catalyst, he must be able to implement his ideas in the field. To lead in New Jersey a state official must have a broad base of organisational and local support.

Some would contend that the Commissioner's alleged failure to build a sufficient base of local support was a major deterrent to his efforts to bring about educational change in New Jersey. Indeed, the whole turnkey model or strategy for change wherein research and development activity carried on in RPE are turned over to others for implementation is questioned. Some students of the change process remain convinced that true change occurs in any organisation only when those reponsible for putting innovations into operation are involved in their invention and planning.

Until 1967 such a consensual strategy for change typified innovative efforts in public education in New Jersey. This style of leadership engenders minimal conflict. It is characterised by leaders who believe in "touching bases" with the interests which will be effected by proposed changes. This approach to change is tedious as it includes extensive processes of clearance and involvement; it typifies the style of leadership exercised by Marburger's predecessors and school administrators in general. It also characterises the gingerly fashion in which state level leaders in all policy realms have traditionally exercised their prerogatives in New Jersey.

Carl Marburger, most agree, by nature is a "mover" and a "thruster" ill-suited in many ways for the consensual style of educational leadership which was characteristic in New Jersey. Marburger's approach, some feel, was anithetical. He pushed for rapid change through force of personality and did not shun direct confrontation. Dispassionate observers agree that his style of leadership had to precipitate conflict in New Jersey. Even his admirers agree, however, that some of the earlier confrontations were exacerbated needlessly by poor political advice. In other words, Marburger was misinformed and his natural inclinations to move, or as some critics would say "talk first and think later", compounded his difficulties by quickly alienating possible allies.

The Commissioner's supporters disagree strongly with this analysis. Problems like race, finance, urban decay, and accountability have nothing to do with an individual's style of leadership or personality. Any person who assessed and articulated New Jersey's educational problems honestly would have had to act as Marburger did and would also have been in trouble. The Commissioner, his supporters contend, had no other viable approaches in his efforts to effect change. In these troubled times Marburger could not have handled things differently and been true to his conscience and deep personal and moral commitment to equalise educational opportunity for all youngsters. To him, the gravity of the problems and the thousands of young lives at stake required immediate action.

Commissioner Marburger, his admirers point out, has helped to bring to the surface the social and political as well as the educational malaise which afflicts heavily urban states like New Jersey. The problems confronting the nation's most urban state have been set in bold relief and the pressures and issues now not only confront the Commissioner but are visible in dozens of school districts as well. Marburger because of his priorities was able to alert many of his educational colleagues at the local and state levels to the dire crisis in the cities.

It is maintained that things will never be the same again in New Jersey, whether or not Marburger remains as Commissioner for another five years. His supporters avow that the State Education Department and local school officials are now very much aware of urban problems and a strong,more city-oriented constituency has been developed; a constituency that will continue to assert itself regardless of the Commissioner's subsequent plans. Indeed, Marburger's admirers would justify his entire tenure on the exclusive grounds that he was the catalyst who generated a realistic awareness of the extent of New Jersey's urban educational problems.

The Commissioner's adherents contend that there have been tangible results as well. Marburger, they say, is a courageous man of his times, well attuned to America's urban crisis. Despite massive professional and political deterrents to change, he has fulfilled his mandate as well as could be expected under extremely difficult circumstances. Brought into New Jersey by an urban-oriented Democratic Governor at a rare time when there was some responsiveness to urban problems being manifested in the executive and legislative branches of Government, Marburger almost immediately had the political rug pulled out from under him. In November 1967 only a few months after his arrival, suburban and rural based Republicans less sympathetic to the cities regained control of the legislature. The negative reactions to the Commissioner's speech on racial desegregation, for example, have already been discussed. In November 1969, of course, a new Republican Governor, William Cahill, was elected. Thus, Marburger's critically important base of political support had been altered dramatically.

The Commissioner, however, in the face of what might be described as insuperable obstacles doggedly and somewhat quixotically tried to sustain and fulfil his original mandate to assist urban school systems. Despite intense pressures to capitulate as the political situation changed, Marburger refused to permit his Department to be dominated by the educational establishment, more specifically, the NJEA. The Commissioner, his supporters maintain, could not have indulged in the traditional consensual style of "talking issues through" with all parties while the cities suffered and thousands of innocent children were receiving inadequate education. He would have been co-opted by the establishment with its knowledge of the state and its power to deter change.

In any event, the Commissioner's philosophy was that change occurred only after people were stirred up, that the generation of creative tensions is the only way to deal with established groups with vested interests in perpetuating the status quo. The "sacred cows" of professional education had to be confronted openly and candidly prior to the implementation of change. Consonant with this philosophy, the Commissioner quickly launched public attacks against some of education's most cherished keystones such as tenure and professional licensing.

Marburger felt that it was necessary to build a broad lay as well as professional constituency. Only through the most broadly constituted public forums could the weaknesses of public education be meaningfully discussed and its institutional rigidities and endemic defensiveness effectively challenged.

How then does one change existing institutions? Commissioner Marburger saw no way of making a difference in education if he "played footsie" with the establishment. He felt compelled to take the establishment on and yet it was necessary and appropriate to co-operate on some issues. Entrenched interests most frequently can outlast and ultimately absorb external reform movements. The basic dilemma confronting advocates of change like Carl Marburger is how far a reformer can go in working with the established interests? On the one hand, permanent educational change is achievable only with the support of teachers, on the other hand, inordinately close relationships with the establishment can lead to co-option. The extent of co-operation then is a calculated risk which can threaten a reformer's independence and ability to generate meaningful innovations.

An outsider attempting to assess the accomplishments of Carl Marburger at the end of his fourth year in office might reach a few somewhat contradictory conclusions. There is little doubt that the Commissioner has accomplished, in the face of powerful constraints, many of the things he was brought into New Jersey to do. There is a much stronger urban thrust, and awareness within the state of the plight of the cities. Programmes like "Model Cities" have established for the first time a tangible Education Department presence in urban centres. A larger share of the state's resources is being shifted into city school systems which have the greatest need. The cities through the Bateman proposal are likely to receive more equitable state financial support in the future than they have received in the past.

Much also has been achieved in several of the Commissioner's other priority areas. There is increased citizen participation in a whole range of educational activities. Residents of the urban centres and minority group members, once virtually ignored, are represented, for example, on "Model Cities" and bilingual advisory committees. The "Our Schools" programme and the Bateman proposals have further expanded the base of citizen participation in educational decision making.

The Commissioner's desire to emphasize new approaches to early childhood education has been implemented in activities like the New Jersey Learning and Development Centre in Newark. In addition, the Title I and Title III Departmental guidelines have promoted the development of other programmes which concentrate upon early childhood education. The Micro-Social Pre-School Learning System and some of the work of the EIC illustrates this emphasis.

The Commissioner with the assistance of Stan Salett also has succeeded to some degree in generating a new climate in New Jersey education; a climate that is more amenable to change. Educators in New Jersey are now more readily exposed and perhaps more responsive to new techniques and programmes.

Despite these achievements, an outsider evaluating the situation in New Jersey's Education Department remains somewhat ambivalent. He senses that much is going on but that the coalescence of activities needed to have a meaningful widespread impact on the state has yet to occur. A number of exciting and promising programmes spurred by the Division of Research, Planning and Evaluation are under way in embryonic form and may just about be ready for widespread dissemination. The Division, however, as Marburger enters the final year of his five year term, seems uncertain about whether or not to undertake a more rigorous and visible role in efforts to implement educational change in New Jersey.

It should again be stressed that powerful deterrents confront those who attempt de novo to institutionalise research and development capabilities in established public agencies. The problems confronting Commissioner Marburger and RPE are faced by leaders in many other states as they attempt to generate educational change. It is very difficult to obtain from reluctant officials in the legislative and executive branches of government, particularly when economic conditions are unfavourable, enduring financial commitments to support "intangible" research and developmental activities. At the time of writing there was still only a small percentage (10 to 15 per cent) of the professional staff members of RPE who were supported by state money.

One gets the impression of a flower finally ready to bloom but constrained by an unpredictable weather forecast. This metaphor alludes, of course, to the uncertainty of whether Carl Marburger will remain as Commissioner when his term expires on 30 June 1972. Many of the seemingly inchoate and discrete programme components which Marburger and Salett have been attempting to put together appear ready to jell. This will happen, of course, only if the Commissioner is reappointed to administer plans and priorities which finally seem ready for implementation.

As was indicated, the Commissioner's grants management strategy through which he would be able to co-ordinate and allocate resources according to his priorities, at the time of writing, is just getting under way. Implementation of the Bateman criteria, which finally can help to mitigate for cities the inequities of the state aid formula, is likewise imminent. The state's educational problems have been identified, defensible priorities have been established, and a programme like "Our Schools" is concurrently generating educational goals and conducting a needs assessment programme. Through the grants management plan, fund administrators, once working in a fragmented way, will now be co-ordinating their efforts to achieve the same goals and priorities. The state then can begin to plan cohesively to act on these priorities. The new Bureau of Grants Management can monitor how programmes fit priorities and ensure that resources are "earmarked", for example, for programmes like "Model Cities".

Potentially, then, for the first time New Jersey's Commissioner of Education will be in a position to plan and manage his agency in a way that will guarantee that his priorities are being implemented coherently in the allocation of resources.

One might guess that Carl Marburger could ask himself the following salient questions as he contemplates the future. Was there a way I might have pushed for change that would have alienated people less? Would I have been in a stronger position vis-à-vis reappointment if I had troden more cautiously or would this have negated the progress we have made? If I had to do it over again, would I proceed to build in a more compromising way a broader base of support so that I could be more assured of instituting permanent educational changes? What has been the value of the nasty political struggles if I am not in a position to implement the reforms I have espoused?

These types of questions have plagued all reformers as they attempt to assess their accomplishments. Reformers who hold public office are in particularly complex and volatile positions. Those leaders who boldly challenge the status quo in an institution as visible and controversial as the public schools inevitably pay some price politically. Carl Marburger has made some notable contributions to education in New Jersey. Whether or not his tactics have needlessly undermined his chances for accomplishing even more will be debated for years to come as events unfold.

GLOSSARY

BATEMAN ACT, Chapter 234

Laws of New Jersey of 1970. Significant legislation to improve local educational programmes by giving the State Department of Education the power to distribute incentive payments, prepare criteria for such funds, encourage planning and evaluation procedures as well as local accountability. Philosophy underlying Act: New Jersey school systems will direct efforts toward bringing each child to the level of his own potential based on objectives which meet state, local and the individual's needs.

CAMDEN EDUCATIONAL DEVELOPMENT PROGRAMME

By providing released time for teachers, this in-service project, funded under Title III, ESEA, is designed to help staff members plan curriculum development and improved instructional techniques. Provision is also made for training a group of substitute teachers and para-professionals. Topics covered include differentiated staffing and plans for working with disruptive children.

COMMISSIONER OF EDUCATION OF NEW JERSEY

Chief state school officer is appointed by the Governor, by and with the advice and consent of the Senate for a 5-year term. As chief executive and administrative officer of the Department of Education, the Commissioner is the budget and fiscal officer. He makes all personnel appointments subject to the approval of the State Board and to Civil Service laws and assigns departmental duties. He supervises all schools in the state which receive state appropriations and serves as a member of the Governor's cabinet.

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE (HEW)

A major department of the federal government, presided over by a commissioner of Cabinet rank. The US Office of Education is one of the many constituent units of the Department.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)

A federal department whose purpose is to increase the effectiveness of methods and techniques for solving community problems such as housing, education, public welfare and urban mass transportation. It provides assistance relating to community development for research, studies and demonstrations.

DIVISION FOR RESEARCH, PLANNING AND EVALUATION

A development unit of the New Jersey State Department of Education for innovative educational programmes. The Division consists of 5 Offices: Research and Development, Model Cities, Planning, Programme Development and Programme Evaluation.

OFFICE OF PROGRAMME DEVELOPMENT

Responsible for programme design and models to meet defined needs; advise on scheduling for programme installations; provide consultation on design and conduct of programmes in relation to total educational programmes and to district and state priorities. Administers Title III, ESEA, for Department.

OFFICE OF MODEL CITIES

The State Education Department contracted with HUD to conduct a special project to define a role for state education agencies in the federal Model Cities programme. This office has created a liaison between local education agencies and the local Model Cities agencies to assist in the establishment and maintenance of good working relationships between these agencies. It further seeks to improve relationships between the State Department of Education and the inner city neighbourhood residents.

OFFICE OF PLANNING

Works with other Department units and public schools to develop internally consistent, comprehensive plans to meet specific educational goals and objectives. It directs and assists in integration of innovative practices and promising programmes identified within the state or across the country. "Our Schools" programme was initiated by this office.

OFFICE OF PROGRAMME EVALUATION

Co-ordinates evaluation activities undertaken to improve instruction throughout the State. Establishes criteria for evaluating new or modified programmes.

OFFICE OF RESEARCH AND DEVELOPMENT

Responsible for providing information to all involved in educational change in the State; testing all programmes modifying and implementing new ones. The Teacher Innovation Programme (mini-grants) is co-ordinated in this office.

EARMARKING

Setting aside a portion of programme funds for specified purposes

EDUCATION PROFESSIONS DEVELOPMENT ACT (EPDA)

Part of the Higher Education Act of 1965. This federal legislation awards grants or contracts to attract or prepare persons to become teachers and to help train para-professionals for work in schools.

EDUCATIONAL IMPROVEMENT CENTRE (EIC)

Regional centre, serving 8 southern counties of New Jersey. Funded under Title III, ESEA, its responsibilities are tied to planning, research, programme development, evaluation and dissemination activities of new and innovative programmes. EIC priority areas are: individualised instruction, special education, pre-school instruction, administrative in-service training, outdoor education, education for the culturally deprived and school evaluation techniques.

ELEMENTARY AND SECONDARY EDUCATION ACT OF 1965

The first large scale federal school aid law in the US history designed to stimulate innovation, strengthen states, link research with the schools and make the problems of the poor the nation's number one educational priority. Brief descriptions of the Act's 8 Titles follow.

TITLE I

Compensatory Programmes. Designed to encourage and support the establishment, expansion and improvement of special programmes, including the construction of minimum school facilities where needed, to meet the special needs of educationally deprived children of low income families. This is the broadest of all ESEA Titles with the greatest fiscal allocation indicating its primary importance.

TITLE II

Programme to make school library resources and other printed and published instructional materials available to school children to improve the educational quality in the nation.

TITLE III

Projects to Advance Creativity in Education (PACE). Designed to encourage school districts to develop imaginative and exemplary solutions to educational problems; to utilise research findings more effectively; and to create, design and make intelligent use of supplementary centres and services. There are currently 49 projects in operation throughout New Jersey. Projects are generally funded for 3 years with the expectation that the district will continue successful programmes with local resources. New Jersey's adoption rate of 93 per cent is one of the highest in the country. The ultimate goal is to have proven ideas widely adopted and not just confined to a local district.

TITLE IV

Authorises training of research personnel and improved dissemination of information from educational research and development. Provides for construction and operation of centres to improve the quality of teaching in schools and for purchase of research equipment.

TITLE V

Programme to strengthen leadership resources of state education departments. State education agency identifies educational needs of the state and designs programmes to meet these needs.

TITLE VI

Programmes for Special Education.

TITLE VII

Bilingual education for children from low income families.

TITLE VIII

Development and demonstration projects for drop-out prevention; demonstration projects in school health and nutrition services for children from low income families.

MICRO-SOCIAL PRE-SCHOOL LEARNING SYSTEM

A model programme in Vineland, New Jersey for pre-schoolers from poor migrant families. It stresses development of language and behavioural skills.

MINI-GRANTS (TEACHER INNOVATION PROGRAMME)

Small grants of money, provided by the State Education Department to individual teachers to experiment with innovative instructional practices.

MODEL CITIES PROGRAMME

(A Title of the Demonstration Cities and Metropolitan Act of 1966). A federally funded programme administered by the US Department of Housing and Urban Development (HUD) to develop and implement comprehensive plans for revitalizing blighted urban neighbourhoods. There are about 150 Model Cities in the US and 9 of them are in New Jersey. Concerns of the agency include: education, housing, health, income, social services, economic development and mass transportation.

NATIONAL SCHOOL LUNCH PROGRAMME

Assists with funds and food to provide wholesome lunches every school day to the Nation's school children. Includes provision for purchase of food preparation equipment in poor areas and a new pilot breakfast programme for needy school children. It is administered by the US Department of Agriculture's Consumer and Marketing Service in co-operation with State Departments of Education. The latter enter into agreements with individual school districts for the operation of the programme.

NEW JERSEY ASSOCIATION OF SCHOOL ADMINISTRATORS (NJASA)

An organisation consisting of chief school officers of New Jersey's school districts.

NEW JERSEY CONGRESS OF PARENTS AND TEACHERS

A state affiliate of the National Congress of Parents and Teachers. Its goal is to maintain and improve public education in the state through the co-operative efforts of parents and teachers.

NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS

A recently created unit of the State government to promote co-ordinated approaches to community problems, particularly in urban areas.

NEW JERSEY EDUCATION ASSOCIATION (NJEA)

An affiliate of the National Education Association. It represents public school teachers and administrators. Strong influence on educational legislation, teacher negotiations, curriculum and other matters pertinent to public education.

NEW JERSEY LEARNING AND DEVELOPMENT CENTRE

Based in the Newark Springfield Avenue Community School, it serves as a regional demonstration and research centre. It has two operational models: 1) community schools with a day care component and a kindergarten-second grade unit, 2) Training technology and staff development for local leaders.

NEW JERSEY STATE BOARD OF EDUCATION

A 12-member body appointed to 6-year overlapping terms by the Governor with consent of the Senate. A special requirement mandates that 3 members must be women. The State Board sets policy and assumes overall responsibility for the public schools of New Jersey.

NEW JERSEY STATE DEPARTMENT OF EDUCATION

A principal department of the executive branch of the state government. It is composed of a State Board of Education and the Commissioner of Education with such division, bureaus, branches, officers and employees as are necessary to carry out the mandate of the State Constitution. In it education is stated as a state responsibility through which the free public schools of the state must provide a thorough and efficient system of instruction for all children of the state between 5 and 18. The functions of the Department fall into 4 areas: service to the local school districts; regulations (teacher and school certification), distribution of federal funds, pupil transportation: adjudication; and an executive function in such matters as dispensing state aid, administering of the State Library, the State Museum and the State School for the Deaf.

NEW JERSEY URBAN SCHOOLS DEVELOPMENT COUNCIL (USDC)

An educational coalition of the 10 largest cities in the state, funded under Title III, to co-ordinate a common approach to urban educational problems. Designed to serve as an agent of change, the USDC works in areas of research, programme development, evaluation and dissemination efforts.

OFFICE OF ECONOMIC OPPORTUNITY (OEO)

A federal bureau created to administer the Economic Opportunity Act of 1964. The office approves proposals, makes grants and monitors the operations of programmes designed to bring compensatory services to the disadvantaged. The Titles of the Act include youth programmes, urban and rural community action programmes, special programmes for migrants, work experience programmes, administration and co-ordination. The Economic Opportunity Act was the first broad-gauged legislation designed to combat poverty in the nation.

OMBUDSMAN

A representative of the people who has direct access to public officials in efforts to redress citizens' grievances.

OUR SCHOOLS PROGRAMME

Project involving broad spectrum of citizens across the state in the development of needs, objectives and goals for education in the State.

VOCATIONAL EDUCATION ACT OF 1963

Federal Legislation designed to strengthen and improve the quality of vocational education and to expand vocational education opportunities.

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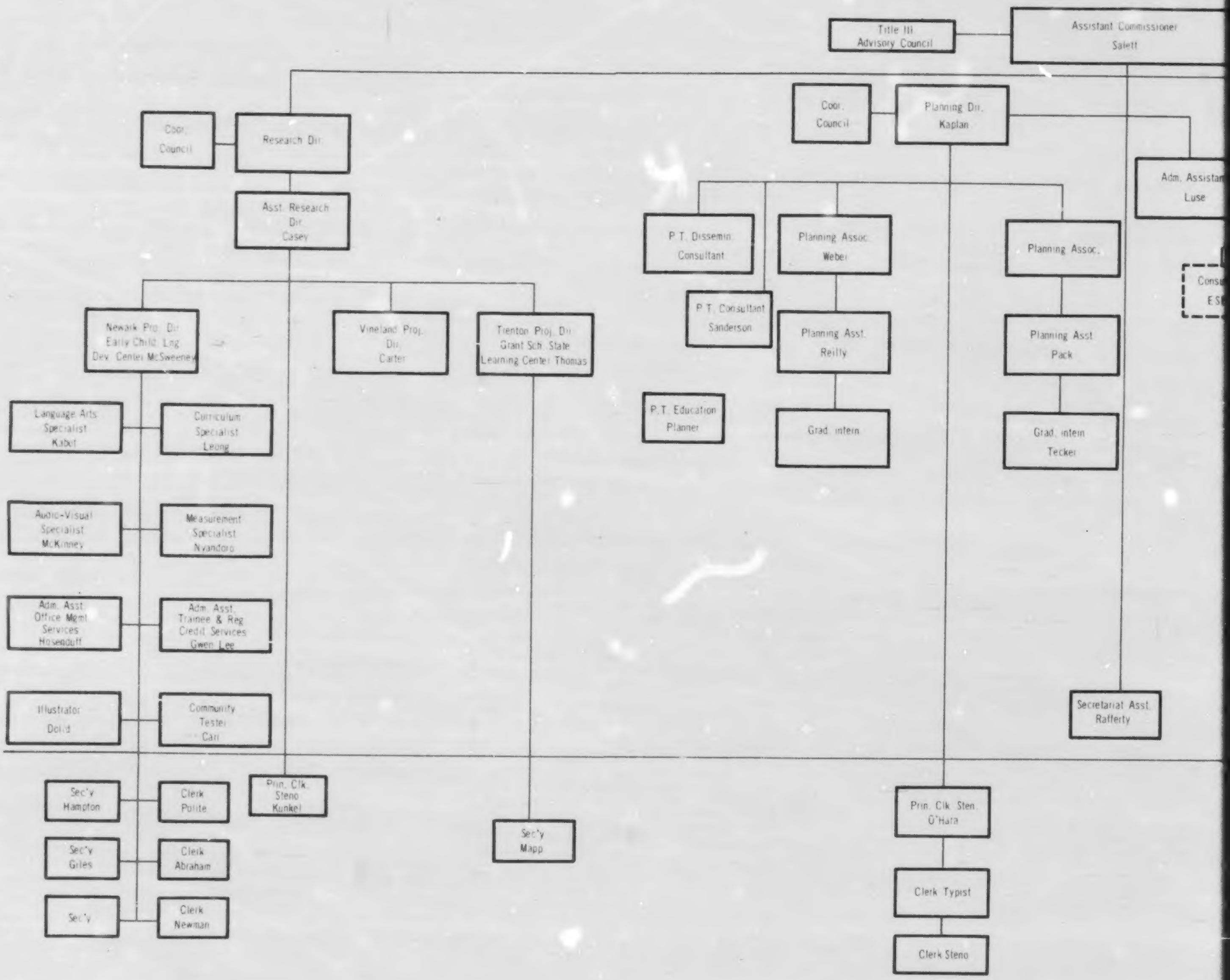
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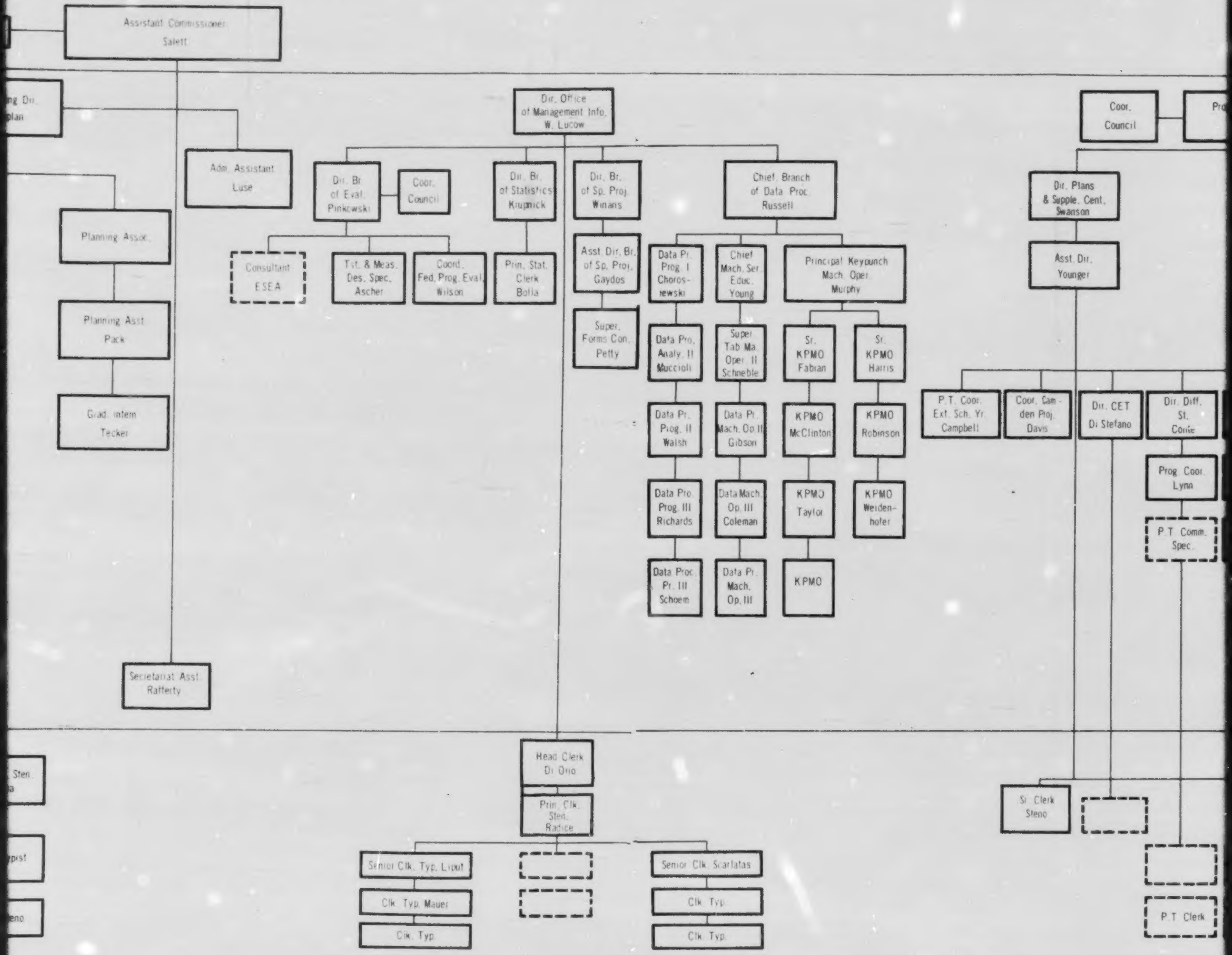
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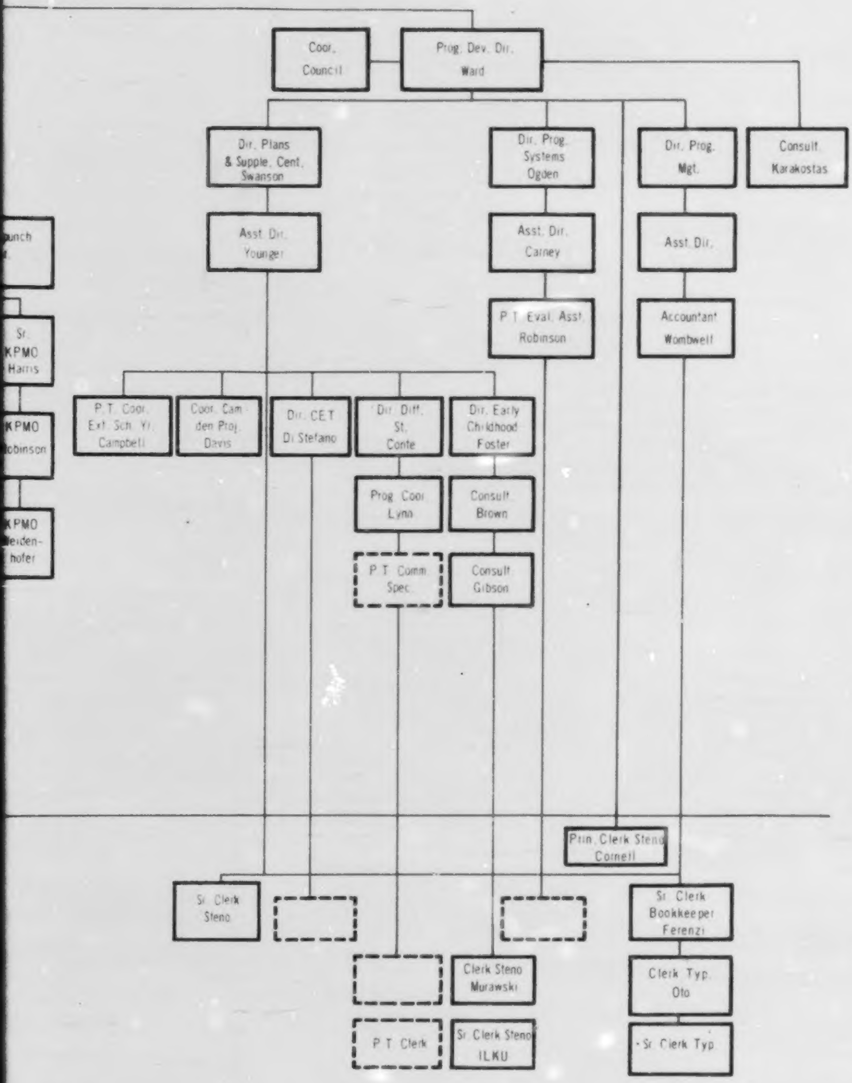
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Part Five

THE NATIONAL BOARD OF EDUCATION (NBE), SWEDEN

by

Oddvar VORMELAND, Director of Education, Oslo,
Norway

April 1971

SUMMARY

Sweden is famous all over the world for the speed with which it has carried through a radical programme of educational reform. At the centre of this work throughout the 1960s has been the National Board of Education - NBE. And within the Board, research and development work has come to be concentrated in the renowned Bureau L.4.

It is this section of NBE, and the activities of other sections which include research and development work, which this case study describes.

But the author first traces the history of the Swedish educational system briefly up to 1940, and then in more detail: through the 1940s a decade of surveys, the 1950s - a decade of experiment and research, to the 1960s, in which the transition to the nine-year comprehensive and associated reforms dominated the educational scene.

Bureau L.4 had its origins in the Department of Research and Development of NBE: it was a logical development from the Department, and has now taken place formally at the centre of innovative activity within the system. But innovative activity does occur in Sweden in a number of other institutions and bureaux, and they and their relationship to L.4 is described.

Anyone coming across the recent history of change in the Swedish schools system must be impressed, not only by what has been achieved, but by the rate of progress. The author suggests that one important factor in this has been that the most significant demands for reform and change have come from outside the system - from the people themselves through their elected representative politicians, and not from professional educational and school administrative sources. On both political and social premises, influential organisations and individuals have come to believe that the existing system is not satisfactory, and they have been able to articulate their views. Then there has been a useful interaction between these people and the existing educational executive, mainly in the political administration of the Ministry of Education. The leaders of this have during the last 30 years, in the author's view, become strongly involved in new ideas and reform of the system. Since its reorganisation in 1964, the NBE's role has followed a new and even more radical course. Previously, its role had been mainly that of supervising, controlling and carrying out financial duties - "walking backwards into the future", as one observer described it. Since 1964 the new NBE has made its mark as an initiator as well as a powerful apparatus for implementing innovations, and has been much more concerned with content and the qualitative aspects of school development. Bureau L.4 has played no small part in this change of emphasis.

In his conclusion, the author singles out some current points of growth for innovation in education in Sweden: among them teacher training, refresher training, new methods of disseminating research and new methods, and the training of researchers.

Few school systems and school reforms have been founded to the same degree on educational research findings as has the Swedish. This study traces the progress of new ideas, through an innovative agency out into the system.

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ACKNOWLEDGEMENTS

Besides thanking those responsible for this series of case studies at CERI, I would like to express my gratitude to the following people for their invaluable support and aid during the preparations for the report:

The staff of the Department for Research and School Development, and in particular its leader, Educational Counsellor Sixten Marklund, and Section Director Eskil Björklund at the Office of the Chancellor of the Universities, as well as the following people who have willingly co-operated by allowing themselves to be interviewed:

Under-Secretary Lennart Sandgren, Ministry of Education,
Director-General Jonas Orring, NBE,
Lecturer Urban Dahllöf, University of Gothenburg,
Educational Counsellor Sven-Erik Henricson, NBE,
School Director Henning Øberg, School Board, City of Stockholm,
School Director Gunnar Sjöström, School Board, City of Skellefteå,
School Supervisor Hans Lennart Lundh, School Board, City of Gothenburg,
Gymnasium Supervisor Evert Ullstad, NBE,
Ombudsman Lars Paul, Swedish Teachers' Organisation.

Chapter I

THE SWEDISH SCHOOL SYSTEM: HISTORICAL BACKGROUND

The central administration for the educational research and development activity within the Swedish school system is in the hands of a central authority, the Swedish National Board of Education (NBE). NBE also has complete responsibility for educational research and development work. The major portion of the central management of these tasks falls on a special research and development bureau (Bureau L.4). It is the activities of this Bureau which are the main subject for description.

The Secondary School

In line with the European school tradition the earliest school measures in Sweden were taken in conjunction with the Church and its efforts to educate ministers - and later to enable other, specially selected persons to learn to read.

Since the Reformation the country has had a State Church, and the first school law (1571) was a part of the country's church laws.

In spite of a certain humanistic and natural-scientific element the school was, until 1849, definitely a Latin school.

In 1760 an education commission suggested that the school extend its range of subjects to natural history, physics, economy and bookkeeping. But this proposal was not accepted. In 1820 it was resolved that the activity in the school should be investigated by a commission every third year (a forerunner of today's policy of rolling reforms!).

In 1849 the country was given new regulations for the secondary school, and beginning in 1856 the two educational courses, the classical and the natural science courses, were given equal status.

The secondary school did not have its own central administration, separate from the direct leadership of the Church, until 1904. The following year the lower secondary school (realskolan) was separated from the rest of the school system as an independent, unified section with its own examinations. Beginning with this the way to the

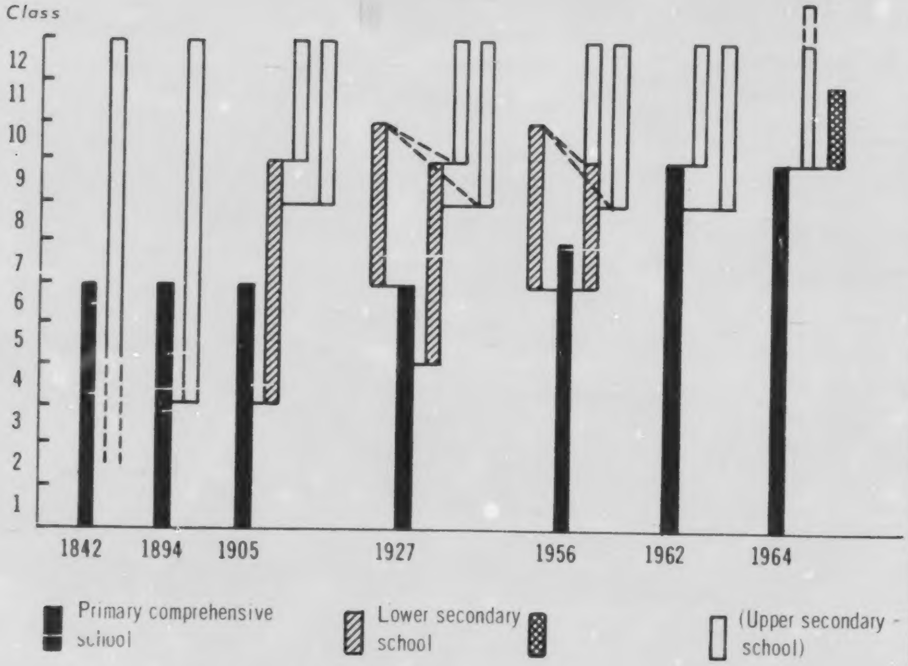
364/

gymnasium (the upper secondary school) was thus normally through realskolan (Refer to Diagram 1). Not until 1953, however, were the two traditional gymnasium courses supplemented with a third course, the general course, in which social studies and modern language were given a prominent position.

Even though the question of organisation and content in the upper secondary school has been under practically constant surveillance since the 1930s it has, until very recently, retained an encyclopedic character, gradually assuming greater breadth in its range of subjects.

During the post-war period (since 1945) the organisational development of the secondary school has been marked to a high degree by the developments within the primary school and the new comprehensive school. A total evaluation of the secondary school was made by the 1960 Gymnasium Commission.

Diagram 1



This commission also considered the existing commercial gymnasia and technical gymnasia in relation to the general academic gymnasium, and with the reform and general development of the upper secondary school as a whole.

The Riksdag (the Swedish Parliament) decided on a new gymnasium form in 1964, and this was put into operation in 1966. A thorough organisational revision of this form, meaning that the dissimilar types of upper secondary education will be co-ordinated into one "comprehensive gymnasium", will be made, beginning this year (1971).

The Primary School

Primary schooling also started under the auspices of the Church, and later, too, of certain parents. The first law for elementary instruction was handed down in 1686, but it was not until 1842 that the communities were given the task of providing schools. Characteristically enough this decision was made by the same Riksdag that reorganised local government, providing for regulated municipal autonomy. Even at as early a date as the introduction of the "Folkskola" (the people's school) six years of compulsory attendance seems to have been envisaged. It was not instituted by law, however, until 40 years later (1882), and it did not become a reality for the whole country until the 1930s.

The 1940s - The Age of School Surveys

However, the political and central administrative authorities began to work intensively on further planning and development of the Swedish school system, and in the first instance on the primary school.

The 1940s stand out in modern Swedish school history as a period of surveys and reports. Headed by the Minister of Education the Government appointed a school committee, the Committee of Enquiry, in 1940. This committee was composed of 14 school professionals and university people, and was to present a summary of the whole of the general education school system.

The extensive report which the committee made in 1947 contained, among other things, proposals for a new, expanded elementary school, an eight-year compulsory school, with a certain amount of streaming of the pupils after four years. The committee also presented outlines for the development of secondary schools.

Even at the time that the expert Committee of Enquiry (of 1940) was appointed it was obvious that it would present fundamental material which a political commission would then continue to work with. The

1946 Royal School Commission took over the task even before the 1940 committee had completely finished its work. The new commission too had the then Minister of Education (Mr. Tage Erlander, later Prime Minister from 1946-1969) as its chairman. In this manner the political significance accorded to the 1946 School Commission was also emphasized.

Through the work of the commission and its proposals the idea of a comprehensive school made its breakthrough in Swedish school policies. The proposal presented in 1948, retained the plan for a 9-year comprehensive school. But this commission arrived at a model different from that of its committee-predecessor. The 1st to the 6th grades would, in principle, be the same for everyone. In the 7th and 8th grades most of the subjects, and thereby most of the material, would be presented in joint classes, but at these levels there would be limited possibilities for free choice of subjects. Not until the 9th grade would there be a clear division into various courses.

> "Without a doubt this idea of differentiation by the School Commission was daring for its day. It is characterised by the post-war period's happy optimism and great belief in education as a developing and peace-promoting factor."
> (from Sixten Marklund: Vår nya skola för barn, ungdom och vuxna - Our new school for children, youths and adults: Bonniers, Stockholm, 1970, p.40).

When the Riksdag (in 1950) discussed the new school structure it determined that the status of the reform would be initially that of a broadly applied experimental activity.

This parliamentary resolution in 1950 marked a turning point in the development of the Swedish school system. As background for the resolution there were extensive reports and intensive debate. The proposal was presented by a Social-Democrat Government. A majority of the Liberal and Conservative members of the Riksdag supported the plans. Criticism of the proposal was mainly expressed by the teachers in the secondary schools who, in their evaluation, almost unanimously considered it an impossibility to keep pupils of uneven abilities and interests together for eight or nine years. The Riksdag resolution meant that a clear, political position had been taken on the principle of the comprehensive school.

At the same time the Riksdag Resolution in 1950 meant the beginning of a period of increased experimental and research activities. These were clearly grounded in the political decision to implement a nine-year comprehensive school. The research activity of the 1950s, which included a series of scientific pedagogical studies, became in the 1960s a more strictly planned pedagogical research and development activity.

The 1950s - The Age of Experiment and Research

At the request of the 1946 School Commission, Professor John Elmgren carried out a study of intelligence on a nationally representative selection of pupils aged 11-15 years, in which the question of "theoretical" and "practical" intelligence in particular, was elucidated. The results were of significance for the Commission's proposals on vital aspects of the streaming problems.

A similar study was later made by Professor Kjell Härnquist for the 1957 School Commission. On contract this commission obtained expert statements from other scientific sources (professors in psychology and education) on the question of streaming.

The School Commission of 1946 proposed two kinds of experimental activity:

a) activity that would include whole communities or groups of communities.

b) experiments in special experimental schools.

Under the former, as early as 1949 a total of 144 communities applied to be included in experiments with new reforms. 14 of these were chosen. This experimental activity was led centrally by NBE and paid for by the communal school authorities. At the end of the experimental period (1962) the communities participating included about half the country's population.

Under the latter type of experiment, one school was put into operation in 1958 (in Linkøping), but the results from this school exerted only a very little influence on the final solution of the organisational and educational problems associated with the comprehensive school reform. On the other hand, this school has submitted results in a number of more limited areas that have been of significance for the schools' qualitative development and in particular for the pedagogical-methodological development. This school, which was the only experimental school of its kind, discontinued its special duties in this sector in 1968, when it was absorbed into a new system of attaching special experimental and demonstration schools to the fifteen teacher training colleges in the country.

In 1953 the Riksdag announced that no more lower secondary schools ("realskolor") would be established. As there were exceptionally large numbers of pupils coming forward this meant that it would be the nine-year comprehensive school which, to an increasing degree, would have to accept those who wanted more schooling after the 6th grade. This was also stated very clearly. The experimental activity had to be expanded. The reform that would introduce the 9-year comprehensive schools had become a mature result of developments and the decisions that had been made.

Transition to the Comprehensive School

The results arrived at during the experimental period, 1950-1962, were of value when changes were under way. There was a rapid and effective feedback, especially where the questions of organisation, freedom to choose subjects and other forms of streaming were involved. The greatest difficulties, however, were found in the internal, qualitative work of the school: the transition to a greater degree of individualisation, self-activity, progress in study techniques and social upbringing. The final report, "Experimental Activity with the Nine-Year Comprehensive School" (Försöksverksamhet med niårig enhetsskola, Stockholm, 1959, p.284), offers a clear, extensive picture of the plans, data and results of the experimental period.

In 1957 the Riksdag appointed a third, important Royal School Commission. This was now to continue work on the questions of the school's objectives and tasks in society. On the basis of experimental results it was also to formulate the content of the new comprehensive school. It was even given the task of making proposals for the organisational amalgamation with other types of schools, making financial calculations, etc.

At the same time (in 1957) the Riksdag determined that the current experimental activity should be completed by the end of the school year 1961/62, and be followed by a general transition to a compulsory, organisationally comprehensive 9-year school.

It was the National Board of Education that, in conjunction with the communities, was given the job of planning the bringing into existence of the new school. The country was divided into primary and secondary school regions. A 10-year plan for school buildings was drawn up. This was continuously revised. The communities, which had to be reorganised into large units or co-operative community blocks because of the school reform, introduced a completely new organisation for the school boards and school principals, in which all community schools were placed under the same administration.

The training of teachers was reorganised in stages, 1954-1958 and 1968. This led to the training of the various categories of teachers being carried out in a new type of higher education institution, the teacher training colleges, which also offered in-service training to teachers and engaged in pedagogical research. Because of the government subsidies it was now possible to develop more unified pupil transportation, school medical services and school meals. Free textbooks were now available, first throughout the compulsory school and later in all secondary schools.

The greater part of this rationalisation fell to NBE centrally and to the school boards locally. NBE co-operated here with other central authorities such as the National Social Welfare Board, the National Medical Board (these two were later combined), and the National Labour Market Board. Characteristic of the Scandinavian reform and development activities in the school is the fact that they are co-ordinated as parts of a further social and economic planning.

For this experimental activity NBE drew up new curriculum guides in 1951, 1953, 1955 and 1962. In addition, a large number of study plans and instructions for teachers' planning in the new school were drawn up. The curriculum of 1962 is strongly influenced by the experiments with the 9-year school. According to resolutions in the Riksdag that same year this was to be gradually introduced all over the country during the course of the following decade.

This resolution remained valid until the next new teaching plan for the comprehensive school was introduced in 1970.

Combining the Primary and Secondary School

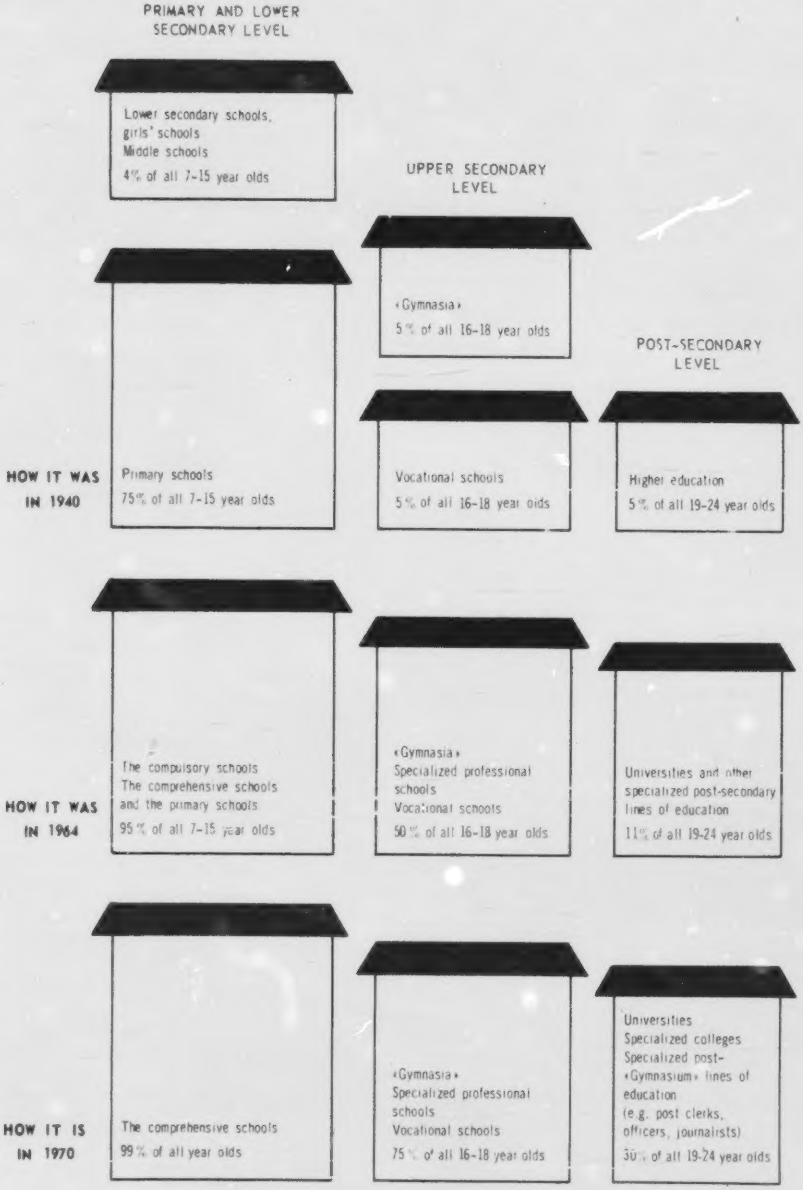
Traditionally, the primary school and the secondary school have been placed, so to speak, side-by-side (see diagram 1). In 1894 it was decided that the secondary school was to be a 9-year school, founded on the third grade of the primary school. Gradually a larger and larger portion of the primary school was made the basis for the secondary school until, beginning in 1964, it was necessary to have completed the 9-year primary school as a basis for attending the secondary school.

The current combination of the two types of school appears in diagram 1, furthest to the right.

A picture of just how large a percentage of the various age-groups attended the various types of school in 1940, 1964 and 1970 respectively is presented in diagram 2. To-day 99 per cent of all 7-15 year old pupils attend the comprehensive schools. including the special schools, 80 per cent of the 16-18 year olds are found in the gymnasia or parallel vocational schools, while approximately 30 per cent of all 19-24 year olds receive post-gymnasium education.

Diagram 2

THE QUANTITATIVE SCOPE OF THE SYSTEM OF EDUCATION IN 1940, 1964, 1970



	PRIMARY AND LOWER SECONDARY LEVEL	UPPER SECONDARY LEVEL	POST-SECONDARY LEVEL
HOW IT WAS IN 1940	Lower secondary schools, girls' schools Middle schools 4% of all 7-15 year olds Primary schools 75% of all 7-15 year olds	«Gymnasia» 5% of all 16-18 year olds Vocational schools 5% of all 16-18 year olds	Higher education 5% of all 19-24 year olds
HOW IT WAS IN 1964	The compulsory schools The comprehensive schools and the primary schools 95% of all 7-15 year olds	«Gymnasia» Specialized professional schools Vocational schools 50% of all 16-18 year olds	Universities and other specialized post-secondary lines of education 11% of all 19-24 year olds
HOW IT IS IN 1970	The comprehensive schools 99% of all year olds	«Gymnasia» Specialized professional schools Vocational schools 75% of all 16-18 year olds	Universities Specialized colleges Specialized post-«Gymnasium» lines of education (e.g. post clerks, officers, journalists) 30% of all 19-24 year olds

Chapter II

THE CENTRAL ADMINISTRATION

Origin and Creation of the NBE

In the Swedish central public administration the ministries (*departments*) are Government staff units (*civil service*). They prepare the Government's proposals on political and economic problems. Within the sphere of purely administrative activity their tasks may be said to be fairly limited. Administration, decision making included, is to a great extent delegated to other central authorities. NBE, under the Ministry of Education, is one.

Another such body - for the universities and the professional schools - is the Office of the Chancellor of the Universities.

As mentioned in Chapter I the upper schools were given their own central administration, separate from the Church, in 1904. Ten years later a similar central administration was organised for the primary school (*folkskolöverstyrelsen*). In 1920 the two administrations were combined into one National Board of Education (NBE).

A special central administration for vocational training was formed in 1944. This lasted until 1964, when it was combined with the central administration for the general school system to become the present NBE.

On the basis of experience and a further development of the school system as a whole, several later reorganisations of NBE have taken place. In 1951, for instance, as a result of the Riksdag's decision (in 1950) on the new school, a special experimental department was established which was to lead the pedagogical experimental activity within the sector of the comprehensive school.

The present arrangement of NBE dates from 1964 (refer to diagram 3), with a few later changes.

According to its statutes NBE has the supervision of

general education, including the people's high schools (*folkhögskolor*), the public library and free public education, the training, supplementary education and refresher courses for teachers and other public servants,

the instruction of children of school-age and activities connected with this,

schools and activities in conjunction with these that are a part of the School Act of 1962,

schools and other training of children, young people and adults, as well as activities in conjunction with this engaged in by the Central Government - or with state subsidies from the community, the county or others.

NBE is organised (see diagram 3 above) with

a governing board (styrelse),
a director-general (GD),
a deputy director-general (ØD),
two staff bodies (information department - IS,
and reporting department — US, as well as

five departments (information department for general school problems - UA, the instruction department for vocational training problems - UY, the department for teacher training and pedagogical development - L, the department for planning - P, and the department for administration problems - A).

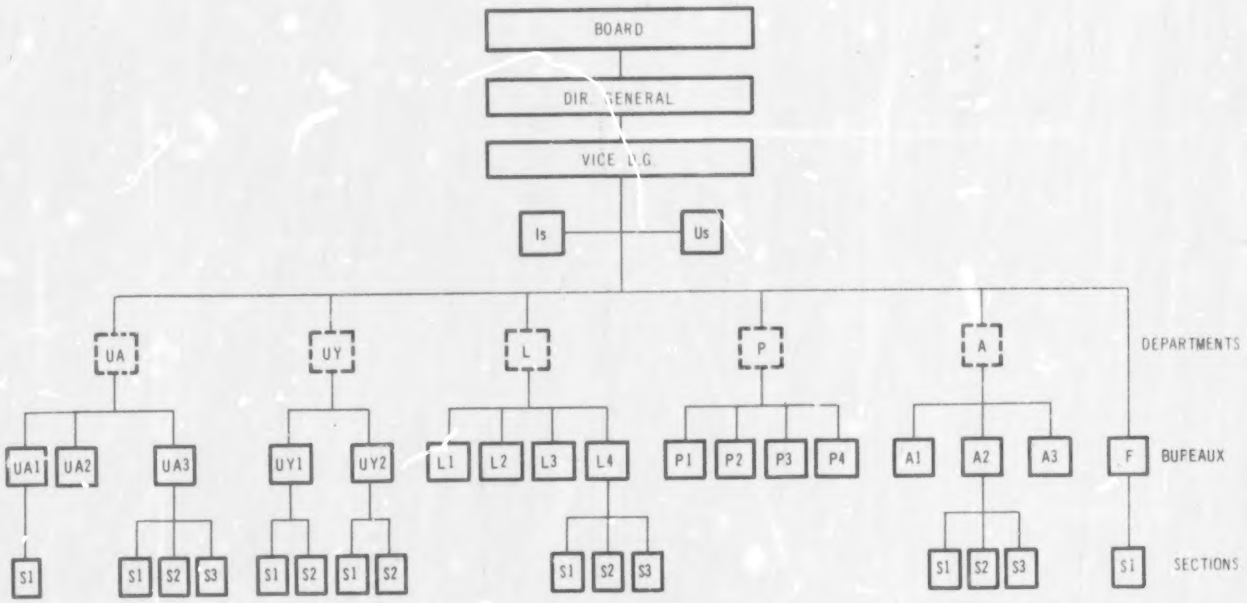
Each department is divided into two or more bureaux. One bureau (for adult education - F) is directly subordinate to the top administration. As is shown on the diagram, several of the bureaux are divided into sections. This holds true for bureau L.4 - the bureau to be described in this report, which has special responsibility for research and development.

A new organisational plan for NBE will be presented shortly. There it is expected that the departments for general subjects and vocational subjects will be amalgamated into a unified school department. In return, adult education will have its own department. It is not expected that there will be any marked changes in the pedagogical research and development activity.

A central administration (like NBE) whose main task is to plan and co-ordinate measures in the school has to function in such a way that different tasks and projects can be integrated. NBE maintains

Diagram 3

PLAN OF ORGANISATION


BOARD
DIR. GENERAL
VICE D.G.
Is
Us
UA
UY
L
P
A
DEPARTMENTS
UA1
UA2
UA3
UY1
UY2
L1
L2
L3
L4
P1
P2
P3
P4
A1
A2
A3
F
BUFEAUX
S1
S1
S2
S3
S1
S2
S1
S2
S1
S2
S3
S1
S2
S3
S1
SECTIONS

that the so-called department principle offers greater possibilities in achieving that aim than the subject-office principle would.

The accepted principles for planning, co-ordination and integration are clearly demonstrated later in the case study of bureau L.4. For exàmple, the officials in this bureau participate every day in meetings with colleagues from other bureaux. More than is the case in other bureaux there is great activity in "cross structural" groups, in other words, working groups with special projects of common interest.

The Ministry of Education (Utbildningsdepartementet)

The Ministry of Education, which is one of the eleven Government ministries, is formally the top body for the administration of all education in the country.

The Ministry is divided into four departments. One of these works on school and teacher-training, one with the universities and institutions of higher education, one with culture and one with ecclesiastical matters. Adult education is placed under the school department.

The Ministry seldom, if ever, takes the direct initiative in innovation questions for the school except where these are questions of principle or of an education-political nature. But proposals which are presented either by political or professional bodies are discussed.

In order to clarify current problems, including those concerning innovations more or less directly, the Ministry often takes the initiative in commissioning surveys - either by royal commissions, or in special report projects to NBE or other central bodies. Even though some people in the middle of the 1960s believed that the age of reports and commissions within the school system should end, and any future problems should be handled by the officials, it has been shown that there is still a place for them.

As an example, there is the important commission that is now studying and reporting on post-gymnasium study opportunities, including questions that also affect the gymnasium level, called the 1968 Educational Committee (U68). The under-secretary in the Ministry of Education is the chairman of the committee, and three director-generals (of NBE, the National Labour Market Board and the Office of the Chancellor of the Universities) are the other permanent members. Three reference groups are connected with the committee, with representatives from the political parties, the Board of Education and the Labour Market Board.

Such committees are planned in close co-operation with the officials, however; for the schools this means the NBE and/or the Office of the Chancellor of the Universities (see page 375).

When the Ministry has received proposals for new activities or changes of previous routines - as proposals from committees or reports - these are usually sent for comment to the affected or otherwise interested organisations, institutions or individuals. Important reporting bodies on school questions are the teachers' organisations, the parents' organisations, the National Social Welfare Board, the National Labour Market Board, the universities and the teacher training colleges. Among the more "heavy" influential authorities, the national federation of labour unions and the union of employers should also be mentioned.

Proposals and reactions are then discussed in the relevant ministerial department. Before the matter is taken up by the Minister and, perhaps, by the Riksdag, there is usually contact with the other ministries affected. Frequently, new proposals will also have financial consequences. In such cases they are then discussed with the Ministry of Finance.

The ('reports') activity has proved to be of great importance for the reform and innovation activities in the school system. The most important committees are parliamentary, which means that they are comprised of representatives of the large political parties in the Riksdag. School administrators, teachers and educational researchers are often on the committees, too, either as regular committee members or as special experts. This co-ordination at the committee level has

	Active during the years	Resulted in Act of Parliament in
1940 Committee of Enquiry	1940-47	-
1946 School Commission	1946-52	1950, 1954
1951 Board of Education Investigation	1951-55	1958
1957 School Committee	1957-61	1962
1960 Secondary School Committee	1960-63	1964
1960 Consultative Committee on Teacher Training	1960-65	1967
1963 Committee on Vocational Training	1963-70	1968, 1971

proved to be of great importance for the later progress of the proposals: it is very seldom that a well-founded committee proposal does not lead to measures by the Government, the Riksdag or within NBE.

This is illustrated by the following list showing some of the more important committees and their results.

There is reason to note that the period between a report and the passing of an Act in the Riksdag is fairly short. When the parliamentary resolution is ready the planning activity in NBE is, as a rule, well under way.

As a typical Swedish feature it can also be noted that committees of this type often commission researchers to do special research studies. For this reason there are a large number of doctoral theses on education written in connection with committee reports.

Chapter III

BUREAU L.4, FOR RESEARCH AND SCHOOL DEVELOPMENT

The bureau has grown up as a special section within NBE in the course of a twenty-year period. There are several interesting features in this development.

In this chapter the current situation, including the resources available, will be briefly presented.

Development

The School Commission of 1946 proposed that experimental activity should be started in conjunction with the plans for a nine-year compulsory school (see pp. 369,370).

In order to have a body to lead the experimental activity, NBE proposed as early as 1948 that funds be made available for a special, smaller administrative unit within NBE. The following year the Riksdag gave the go-ahead for this organisation, and in 1950 it was declared that the administration of experimental activity and accounting should as a whole be a part of NBE and that the necessary funds for this would be placed at NBE's disposal. The research department was granted formal status on 1 July 1951. At that time its staff consisted of two educational counsellors, two assistant research fellows, three research assistants, one research expert (half time), one first secretary and a clerk.

Beginning with the school year 1952-53 the department was divided into three bureaux for

a) general questions on experimental activity as well as questions on the comprehensive school's lower and medium stages,

b) theoretical subjects and courses at the upper level within the compulsory school as well as experimental activity within the upper schools,

c) theoretical and practical vocational orientation, preparatory vocational training, as well as practical lower secondary schools.

Gradually, the staff has been somewhat expanded. While the department from the start was concerned with most of the questions on the experimental communities, a large part of these tasks was gradually transferred to other, relevant working units within NBE.

A layman's board was attached to the department. The leader of the department was chairman of the board, and it had seven other members, including three parent-representatives. As a rule the board had two meetings a year. Reports were submitted on the experimental activity, and questions on future work were discussed.

When the research and experimental department was discontinued in 1962, due to the fact that the fixed experimental period in connection with the new comprehensive school had ended, the whole of NBE was reorganised. Among other changes a new bureau was set up within NBE to take care of educational research and development work. A parallel bureau, within the same department, was concerned with school-psychological questions.

In conjunction with the new organisational set-up (1964) there was discussion as to whether the development activity should be divided between the different working units or if there should be a special working unit. The research and experimental department remained as a special bureau, however, with the title "Bureau for educational development activity" (L.4). Since 1962 this has administratively been a part of the department for teacher-training (see diagram 3). The most important reason for this appears to be that the bureau was thereby placed in the department that would also administer the teacher training colleges and institutions. The intention was, even at that time, that these should be important bodies in future national R & D activity.

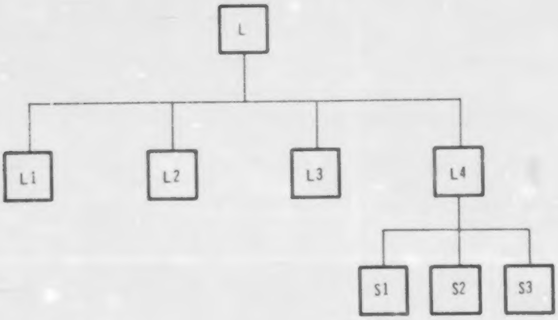
(Since that same date (1964) the Office for School Psychological Activity has belonged to the Department for General School Questions (UA)).

In 1965 the bureau (L.4) was given a special section for test construction. Even though NBE had also been responsible earlier for tests used in the schools, the construction of them had been done outside the Board (at the universities and, later on, at the Stockholm School of Education).

In 1969 L.4 was also given formal responsibility for the development of educational materials (aids), and a new section was established to work particularly in this sector.

A general overview of NBE's present (spring 1971) organisation is given in diagram 3. Department L has now been divided into four bureaux. (See diagram 4).

Diagram 4



L 1 takes care of: teacher training for experimental and primary school teachers, as well as special teachers, supplementary training

L 2 takes care of: training of teachers of vocational subjects

L 3 takes care of: refresher courses for teachers, principals and other personnel

L 4 takes care of: educational research and development activity, development of educational aids, evaluation questions.

L 4 is then divided into three working sections:

L.4:1 School research
L.4:2 Development of educational aids
L.4:3 Evaluation questions. (see also diagram 3 and pp. 382-390)

Organisation

As shown in the organisational plan for NBE (diagram 3) L.4 is formally a bureau and on the same level as and co-ordinated with 16 other bureaux.

However, this bureau's special position within the larger organisation (NBE) must not be forgotten. The leader of the bureau and its officials constantly emphasize the larger whole of which they are a part. If this bureau had been a unit by itself many of its functions and strategies would have had to be very different.

L.4 is organisationally attached to the administration of the Board, which also has major responsibility for the policy by which the board is led at all times. Formal - and to an equally high degree informal - contacts also exist continually with other departments, particularly with those that have special responsibility for teaching questions (UA and UY) and for the planning of the national education system (P), as well as with the other bureaux belonging to department L, (see page 357 above).

In this connection it should also be mentioned that there is a NBE Board for Educational Development and Research Activity, etc., also called the advisory board. This is historically a continuation of a body that acted as board for the teacher training colleges in Stockholm (starting in 1956) and Malmø (since 1960). When the administration of the teacher training colleges was placed in the hands of NBE (in 1962) this special board on which the rector and the professor of education at the teacher training colleges were represented, was dissolved. In order to continue formal contact with this expertise in educational research and development (R & D), the abovementioned board was established. Representatives from the teachers' and parents' organisation were also members of this board.

To a certain extent this board could also be considered a continuation of the laymen's board, which functioned in conjunction with the experimental activity in the 1950s (see page 382).

The board has, according to its terms of reference, the task of assisting the National Board with advice and proposals on more extensive educational studies and experiments to promote activity and development of the school within the Board's sphere of work.

It usually meets twice a year now, a two-day meeting in the autumn and a one-day meeting in the spring. The officials present plans and orientation on projects. Other current questions can also be discussed here.

As things stand today, this advisory board (which has the General Director as chairman) does not appear to have any particularly important function. Contact with professionals is made more flexibly and efficiently in other ways, and the teachers' and the parents' organisations have (since 1964) had representatives directly on the Board itself and can make their views felt there.

The advisory board described above gradually proved quite ineffective. Its activities have been of little importance for the research and innovation work within NBE, and on all sides it has been emphasized that there would have to be a reorganisation of contacts with "the field". The problem was taken up by the Ministry in a proposition (dated 26 February 1971) to the Riksdag. Here it is stressed that the working situation in the school is not only affected by conditions in the school itself but, to an equally high degree, by conditions in the rest of society. The need for an evaluation of activity in the school is also very much emphasized.

Included on this reorganised advisory board will be representatives of the general social interests and of the parents, the personnel of the school and the pupils, as well as of the behavioural-scientific research personnel.

Just how much progress will be made by such a reorganisation in relation to the arrangement that has been practised up until now is perhaps doubtful. If an advisory board is to have any real mission in the steering of extensive research and development work it must be given a clear and fairly extensive mandate, as well as reasonable, practical working conditions. The impression received from present plans is that no one is inclined to allow the board any of these things. If this is the case the advisory board will continue to be more "window dressing" than an actual instrument in the guiding of the R & D activity.

To an outside observer, the question also arises of how expedient it is to place a research and development unit, with the responsibility for a whole school system, in a position subordinate to the central administrative apparatus. The fact that emphasis is placed on this same unit's also being given the responsibility for the evaluation of work in the schools, in other words of the activity for which its superior central administration has been responsible, as is the case in Sweden, causes the observer to have even more reservations. Very recently various questions have been asked, mainly by politicians, on the advisability of letting NBE make the evaluation of developments.

Relationship of L.4 to Other Branches of NBE

Contacts with other departments and branches within NBE appear in most cases to take place on an informal level and because of particular needs, especially in the granting of priority to new projects and practical problems that arise in the implementation of accepted tasks.

All divisions within NBE are free to propose sectors in which there appears to be a need for research, or for more detailed descriptions of projects that should be given priority. L.4, for its part, also asks to receive such proposals, and deliberately invites them.

L. 4 also seeks further contact with the departments inside NBE most concerned, among them the school consultants, in order to discuss project plans that have been presented by various research institutions (in universities and teacher training colleges).

The annual decisions on the programme for research and development are made by NBE itself. The bureau (L.4) thus has no independent right to make decisions on the larger lines of the programme. Before it is approved it is discussed by a reviewing group composed of the five department leaders plus the chief of bureau L.4. The preparation and follow-up activity in connection with these discussions and decisions is left mainly to the R & D unit (L.4). Decisions made in connection with individual research projects are left completely to the R & D unit.

The position of the Bureau in the organisation pattern may also be questioned by an outsider.

Could not a department that works in relation to the whole school system, and primarily for research and development, including the development of teaching aids and the evaluation of the content and quality of the school, just as reasonably be set up as a staff body (division) on a level equal to the information department (IS) and the reporting department (US) (see diagram 3)? It is obvious that there are points of contact between the research and development activity and the teacher-training sector, but are these more prominent than the relationship with, for instance, the teaching departments?

This problem has previously been discussed within NBE. It has been claimed, for example, that there was a desire not to have too many staff divisions and thus too extensive administration directly subordinate to the top administration. This is an argument to be considered, but it is possible that L.4's position should be re-evaluated, on the basis of the projects which it has gradually been assigned, the manner in which these are solved and new experiences which are gained thereby.

The Three Sections of the Bureau

Bureau L.4 is headed by a director (educational adviser) who has scientific qualifications. Each section is led by a highly qualified section head.

Section 1: School Research

It is this section and its activity that will be the object of primary interest in the following chapters of this report.

The following projects are listed for the section:

a) taking the initiative for and promotion of research of importance to the school,

b) planning and co-ordination of school research of current interest to the various working units of NBE,

c) contact and co-operation, in Sweden as well as abroad, with scientific and other institutions engaged in activities of significance for school research,

d) the dissemination within NBE as well as to the school system, in particular the teacher-training institutions, of the results and experiences gained from school research,

e) deciding the budget and other questions on grants within the sphere of activity of the section.

Section 2: Development of Educational Aids

As pointed out previously (page 382) this is the section that most recently became a part of the Bureau. Section 2 has the following official tasks:

I Planning, in co-operation with the responsible working unit for the respective teaching-plan activity, of projects to offer the basis for the production, selection and use of educational aids:

a) analysis and treatment of the teaching plan's objectives and questions in conjunction with this on the development of educational aids,

b) development of prototypes for educational aids,

c) the development of methods and media for utilisation of new types of educational aids.

II Analysis, in consultation with the producers and institutions in question, of current needs for the development and production of educational aids:

a) co-ordination of NBE's contacts with teaching aid producers,

b) priority-ranking of measures with a special view to shortage sectors.

III Experimental activity with, as well as the trial and evaluation of educational aids:

a) contact with the producers, schools, etc., in question,

b) consultation with the National School Book Board and others in conjunction with evaluations by the institutions interested.

IV Questions concerning the technical, organisational and financial consequences of the purchase and utilisation of educational aids - in co-operation with the institutions responsible for this:

a) development and adaptation of technical aids,

b) distribution, storing, standardisation, etc.

c) registration and information systems in connection with teaching aids.

V Contact with Swedish and foreign institutions of importance for the development of educational aids.

VI The budget and other questions of grants within the activity sphere of the section.

Section 3: Evaluation (Tests, etc.)

Various working projects within the field of evaluation and assessment are taken up by this section:

a) Diagnostic and grade-normalised intelligence and ability tests,

b) instruments for the evaluation of other than cognitive functions, intelligence and abilities,

c) written tests for examinations and practical examination problems,

d) development and experimental activity with instruments and methods of evaluation,

e) contact and co-operation with scientific and other institutions in Sweden as well as abroad, where work is being done on evaluation questions,

f) budgetary and other questions of funds within the activity sphere of the section.

The Staff of the Bureau

Compared to several similar centres for educational change, this Swedish R & D unit has relatively few personnel. This is due particularly to the working form and the strategy that has been chosen (more details of this later).

The leader of the institution has one office secretary.

Section 1: School Research

1 section head
2 senior secretaries (one primarily for administrative tasks and one for informative tasks)
2-3 project secretaries (to take care of the different projects' administrative needs)
3 secretaries (including clerks)

Section 2: Educational Aids

1 section head
14 school consultants and
1 senior secretary
4 secretaries (including clerks)

Section 3: Evaluation

1 section head
7 psychologists/psychometricians
1 school consultant
8 assistants (clerks)

In relation to current projects all these staff may be said to be technical personnel. In addition the sections have regular contact with about 150 educational experts on the various school subjects in order to obtain advice and proposals for current tests and evaluation programmes. Some of these experts have their regular jobs in other divisions of NBE, but most of them are teachers in the different types of schools.

Altogether, the bureau has a professional staff of 30 people, and assistants and office personnel numbering 17 people.

In general it has apparently not been - nor is it still - difficult to obtain well-qualified applicants for the current positions, even though there is a shortage of professional personnel within the educational research and development field in Sweden as a whole, especially if relevant practical experience is required.

Finance

Salaries and current expenditures for the bureau are covered for the most part by NBE's own internal budget. Approximately 10 of the bureau's personnel receive their salaries from funds for research and development work.

The bureau proposes its own budget, based on, among other factors, what it will cost to engage in those projects on which it has made proposals. The proposed budget is thoroughly discussed with the NBE's administrative leaders, however, and this is incorporated in a joint budget proposal for all the divisions within NBE. This proposal is presented to the National Board before it is sent to the Ministry (around 1 August each year) as the total budget for the coming academic year (the calendar year is not followed here). The Ministry's proposition to Parliament (the Riksdag) is ready about 10 January, and during the course of May binding resolutions are passed. It is not until then that NBE knows with any certainty what the financial framework will be for its activity for the academic year beginning 1 July.

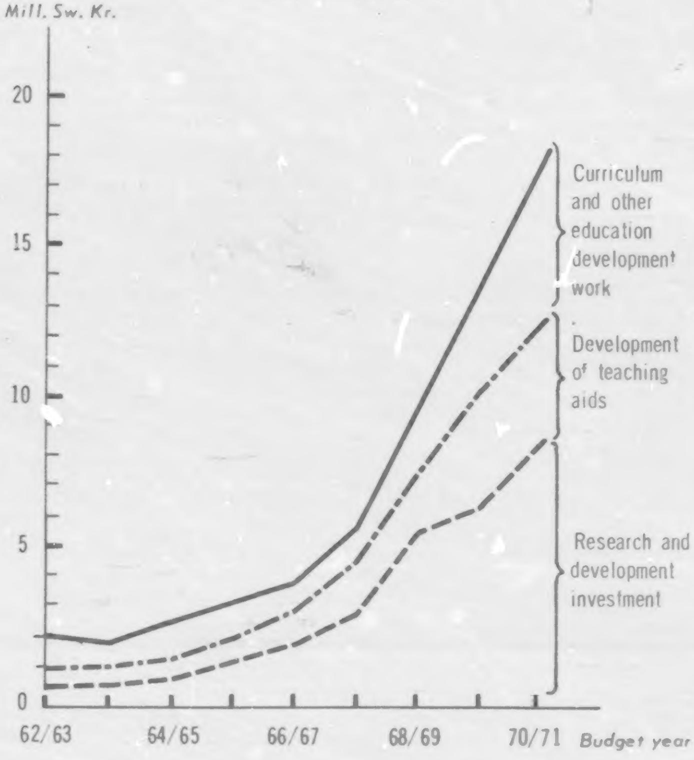
Even though the R & D unit has a certain amount of freedom in distributing the financial means within its own budget, the fact that a whole year elapses from the drawing up of budgets until they are accepted appears to hinder effective planning and the quick implementation of both large and small projects. In relation to the swiftly increasing tempo of the development of the school system there would be great advantages in a more rapid discussion of questions concerned with the financing of various research projects and innovative measures.

In general it may be said that the research and development activity has been given a high priority in budgets ever since the institution was founded (1962).

Diagram 5 shows the increase in economic resources for research and development within NBE. The lowest line (I) represents the direct school research activity (in section L 4:1). The next line (II) includes the funds allocated for the development of educational aids and the top line (III) includes the "curriculum development and other educational development work" within NBE (i.e. in connection with the building of schools).

Diagram 5

ECONOMIC RESOURCES IN RESEARCH AND DEVELOPMENT
1962/63-1970/71



It will be seen here that NBE in the top line has also included activity in connection with direct curriculum development. This indicates that this field is also considered as development work. We are again reminded that NBE also engages in development work outside the bureau - "the R & D unit".

While the R & D section in 1970/71 received about 8.6 million Swedish kronor, the development of educational aids 4.0 million Swedish kronor, and other development activity 5.5 million Swedish kronor, the funds allocated for the next school year (1971/72) are 9.8 million, 3.9 million and 6.3 million kronor respectively, a total of 20 million Swedish kronor.

A grant of two million kronor in 1962 has, in the course of less than ten years, been increased almost tenfold.

NBE has maintained previously, and repeated several times, that the goal must be that one per cent of the country's total school budget should go to educational research and development. Today this one per cent would mean about 50 million Swedish kronor, or approximately two and a half times as much as the present grants.

In a prognosis for a long-term budget the NBE has set up the following additive percentage (in relation to the respective years' previous budgets) under the item"educational development activity": 43.3 per cent (1971/72), 24.3 per cent (1972/73), 17.1 per cent (1973/74), 15.4 per cent (1974/75), 16.0 per cent (1975/76). At the end of this period a sum of approximately 53 million Swedish kronor will have been reached.

(Of the government funds at present, funds are granted via NBE to the amount of over 2 million Swedish kronor for educational research through the National Council for Social Research. From the National Bank's Fund (Central Government), almost 2 million Swedish kronor are allocated at present for the same purpose. In addition there are the extra funds that are allocated to the teacher training colleges' experimental schools for development purposes, a total of 15 million Swedish kronor per year. Thus, in reality, a total of approximately 40 million Swedish kronor is currently spent on development in the school. In addition there are those funds that individual communities allocate for experiments in the schools).

Chapter IV

OBJECTIVES OF THE BUREAU

Framework for Formulating Objectives

In Chapter III are listed the functions which NBE has allotted to the various sections within Bureau L.4. This is an organisational measure to "break down" the more generally formed objectives set for the bureau, so that it can function in practice.

The top responsibility for formulating the objectives of the school, including the partial objectives on which the administration will act, lies with the elected Parliament (the Riksdag). This body will, in the normal course of events, formally make relatively general and all-encompassing formulations of objectives, but as a rule it has fairly extensive premises on which to base its decisions. Parliament can, of course, at any time whatsoever take up questions on those partial objectives that are developed and the administrative practice that is followed. Normally, this takes place especially in the reorganisation of the school system, or parts of it (such as in resolutions for new laws and reforms, changes in the organisation of the administration, etc.), and/or when the annual budget is discussed.

The Riksdag, according to usual parliamentary tradition, will leave it to the Ministry to see that the resolutions are implemented. From the ministerial level the responsibility for the partial objectives and the more detailed administrative and organisational questions are delegated to the central administration, in this case MBE. Here the partial objectives will be formulated more fully and a more efficient division of labour will be made as well and further instructions given to the regional and local units. NBE is, thus, an independent central authority. When Government and Parliament together have drawn up certain guiding principles for the Board and established a framework of action, the Directorate-general has considerable scope for making decisions.

Changes in Aims for and Expectations of Research and Development Activity

As has been noted (see Chapter I), the Swedish school commissions from 1940 to the present, have to an increasingly greater degree consciously tried to base their proposals on insight and results gained through behavioural-scientific research, mainly within the psychological and educational-subject areas. The commissions have also, in this, considered themselves the representatives of the public interest in school developments and have demanded, on behalf of the general public, that this development be based on as firm a foundation as possible, with conscious use of research results and experiences gained from experiments. Only a fundamental understanding of the importance of research and experimental activity in the development of society - and thus of the school, can explain this broad political desire for actual steering mechanisms.

Relevant material has been obtained partially by appointing researchers and research-oriented professionals to committees and commissions, partly by having summaries made of what the research results tell at present about current questions, and partly by themselves initiating (contracting) the desired research with the individual researchers or existing research institutions. Typical of this development is the 1940 Committee of Enquiry's request to the then four education professors to report on views held by the psychological-pedagogical researchers on the question of child development and the implications of this for such important questions as the right age to start school, and the stage at which the first foreign language should be introduced at school. A similar project was given to the professors by the 1957 Royal School Commission, while the 1946 Royal School Commission gave the psychological institute at Gothenburg University, under the direction of Professor Elmgren, the task of carrying out studies on the development of maturity in children and young people, so that the results could form a basis to determine a reasonable age for starting to stream pupils, for theoretical and practical school types of educational course. At that time this was also a central school-political problem-complex.

In the 1940s and 1950s the most important objective of educational research, in relation to the development of the school, was to obtain fundamental material for the discussion of and the policy to be taken on the reform proposals that were being prepared for school-political decisions. The enormous amount of contact and discussion that was already taking place during this period among politicians, administrators, including school commissions, and researchers seems to have been fairly unique in Europe.

Even so, at the beginning of the 1960s the major portion of school research was taking place on the initiative of the research institutions at the teacher training colleges and the universities. Several projects that came to have a great deal of importance for the school and its further development were carried out, very frequently, with the simultaneous goal of qualifying the researcher in question for his Ph.D. or his licentiate degree.

When the bureau for R & D in the NBE administration was started in 1962 the objectives for its activity were relatively general. Very soon, however, more detailed guidelines were developed which made their appearance in, among other places, the budget proposals, in the granting of priorities and statements made by the R & D unit.

The 1962 Act on the Nine-Year Compulsory Comprehensive School was now to be filled with meaning, and an effort made to evaluate the results. The comprehensive school setting also required further research and the development of methods of instruction and teaching aids, the latter not least because of individualisation of instruction. On the basis of ideas and plans for various forms for programmed instruction the further development of these ideas, particularly in the prototype-design of self-teaching material-methods systems, became very prominent in the project policy that characterised much of the 1960s R & D activity.

In recent years there has gradually been more breadth and variation in school research and development. The lists of projects are far more varied than was previously the case. Plans are now being made for larger units - and with greater breadth and at longer range. This is expressed, for example, by the fact that the quantitative questions are, to a great extent, being supplemented with problems of a qualitative nature. The quality of the dissimilar factors that make up the everyday life of the school where its organisation, methods, educational aids, etc., are concerned, are being given particular attention. Other behavioural-scientific disciplines besides psychology and pedagogy are being drawn into the R & D activity to a greater degree.

Changes in the objectives and functions that have been allotted to the bureau have emerged, partly as a result of discussions with the scientific personnel from the pedagogical institutions of the teacher training colleges, and partly at the request of political bodies as well as the General Board (NBE). In many cases it is direct experience from projects that have been carried out, together with national and international school developments, that has led to a certain amount of change in direction.

Current Objectives of the Bureau

In the general instructions for NBE, which discusses objectives, the Board is charged to

- "see that the content and methods of education are renewed, developed and improved continuously in step with the progress and development of research within Government and individual administration, industry and the labour market as well as in the other areas of society, at the same time taking note of conditions abroad,
- provide for lucid, co-ordinated planning of the educational system's extent, structure and organisation ...
- see to it that knowledge of educational development work is spread rapidly among those authorities and others who are responsible for the activity as well as among those who are otherwise affected by the activity."

In practice the main emphasis is placed on creating an increasingly better basis for an ongoing development of teaching plans and educational aids, as well as for continuous quality control of the school's activities.

Based on research and development activity the first objective is to supply the school with those methods and aids that are necessary to guarantee that the teaching goals set up by society are compatible with the actual activity in schools.

In one of the most recent budget proposals the more long-range objectives for R & D initiatives were listed in the following four points:

1. Instruction is to be more effective and more defined. Guarantees are to be given that certain specified results are achieved with the instruction in each school and that every pupil is offered the possibility of a well-rounded development of abilities and interests.

2. The functions of teachers are to be cultivated: the teacher's potential for effectively promoting the acquisition of knowledge, training in subjects requiring physical dexterity, etc., is increased.
3. That part of the instruction that can be called information transfer is not supposed to take place mainly from the teachers and the textbooks that are alike for everyone, but through a number of methods and material units that can be used individually or by groups of pupils.
4. Each pupil's progress shall be observed continuously by the teacher-guidance counsellor.

The rationale for explicit emphasis being placed on objectives for NBE is that it has been stressed by the Ministry as well as by the General Board that development of the school is the primary working task and objective of the whole administration. It is thus not correct, or possible, to point to any particular department - or bureau - as mainly responsible for R & D activities, even though Bureau L.4 is often formally mentioned as being such a unit. As has been pointed out here, this bureau has its own special tasks, with particular responsibility for the research aspect, but it can only be understood and achieve its aims when it is considered - and functions - in conjunction with NBE as a whole.

In this manner, R & D activities make up a broad spectrum. The result is a short path between research and development results and curriculum instructions.

Chapter V

STRATEGIES FOR CHANGE

Here it is natural to start with the ordinary meaning of the strategy concept: utilisation of the available means (the resources) within a definite area. Strategy must consider the stated aims and make plans to evaluate how the resources - material as well as non-material - can be used as well as possible in order to achieve the greatest possible effect.

Planning

As shown earlier the organisation of the innovation activity, led by NBE, has been changed at relatively short intervals. In some cases this has been a result of a change in strategy. In part the organisational changes **have** also been the primary factor, but in the next instance they have had consequences for the strategies that have been chosen.

The R & D activity within NBE can scarcely be said to have been very thoroughly planned. The efforts have to a high degree been determined by very pressing problems or - more often - on the basis of the professional resources that have been available and the interests most predominant among these people.

System planning within other levels of society, along with critical evaluation by subject educators and pedagogical technocrats, have led to a changed attitude toward long-term planning.

Even though it is not primarily aimed at research and development work, there is reason to mention the project group which, since the beginning of 1970, has been at work drawing up a planning system for the school system (PLANS). The group, which is mainly composed of officials within NBE, with contacts with outside experts, aims at studying and reporting on the possibilities of developing a planning structure for the school system. It is working particularly with the aim of arriving at expedient model(s) for long-term planning.

The leader of the R & D unit (L.+) is one of the members of the group and is therefore able to be an advocate for views that can be of importance for the management of change.

It is reasonable to expect that, on the basis of results from Plans, clearer programmes may also be drawn up for the R & D strategies.

In this context the so-called multi-seminars should be mentioned. In recent years they have been arranged on a national level, as a rule initiated by NBE. Here expertise (mainly researchers) is represented from several contiguous subject-fields, and co-ordination among dissimilar institutions is discussed regarding action and strategy within specific problem sectors. Among the subjects that have hitherto been discussed in this way are the pre-school project, the training of teachers and instruction in the mother-tongue.

In addition the most important discussions of strategies for the R & D activity appear to have taken place within NBE's own framework, in the routine professional-administrative manner as well as in internal ad hoc committees. Included in these are the previously mentioned advisory board and the planning committee (see Chapter III), consisting of representatives from those institutions involved in the research projects that handle the questions of priority-ranking and implementation in particular.

In this context it must also be stressed that the NBE is engaged fairly actively in granting priorities and steering current projects, and thus has a different position from that of boards that administer research funds of various kinds, or independent research and development institutions.

Relationship of Research to Development

It has not been possible or desirable to draw any sharp, theoretical boundary between research and development in NBE. In the practical management of change, however, it has been quite natural to draw up certain dividing lines, a fact that appears to be relatively characteristic of the strategy followed in the Swedish system.

NBE does not on principle reject projects that more or less bear the marks of basic research in its activities,which include the allocation of research resources. In earlier budget proposals (see, for instance, those for 1967/68), it is emphasized that it is necessary to develop suitable methods for making studies. "Research-technical problems have therefore been given great attention up to the present. From the immediate viewpoint of the school these can often appear to be peripheral, ...".

Applied research, school research and educational development activity are considered as parts of a continuous process in which strictly scientific research represents one extreme and measures to support and improve teachers' practical instruction the other.

On several occasions NBE has emphasised that its ambition is to consider research and development as a whole, founded in the reality of the school. In this way, in their strategy they have also desired - and been able - to incorporate the dissemination of available results, experiences and evaluations, and relate these to the school's everyday life, to its real production process.

The development work, insofar as possible, will deliberately be based on knowledge gained through research - or in other ways. On the other hand, the development activity will focus on the need for research, or feedback information that leads to re-granting priorities to registered projects. When development work begins without being the direct outcome of experiment and research results, at a certain point there is often a need to have research assistance. It is known from experience, for instance, that this situation often arises when one arrives at problems concerning evaluation.

Research: Section L.4:1

As pointed out earlier the research effort made through NBE is considered as an integrated part of the Bureau in order to obtain research-based evidence for decision making. A more active part is thus taken here in the planning, etc., than is the case in ordinary research funding agencies.

The leader of the Bureau, or those persons who are involved in this particular section (L.4:1) are very infrequently, if ever, engaged directly in carrying out the research projects. Their task lies in administering the research, drawing up goals, granting priorities and co-ordinating the various projects with each other and with the all-encompassing objectives.

Through L.4:1 NBE makes contacts and contracts with research institutions at universities and teacher training colleges, mainly the latter.

Every year an inventory of the needs for research and development activity on a national level is made. Various divisions within the NBE list current project proposals and rank these according to priority. The behavioural-scientific research institutions are given the opportunity of doing the same thing once a year. Last year the County Boards of Education, the teachers' organisations and the producers of educational aids were also invited to present their proposals, with priority ranking. On this collective basis a catalogue of needs is drawn up every year. After the researchers at the respective scientific institutions have commented on this catalogue, taking into account, among other factors, the practical possibilities of the researchers themselves becoming involved in individual projects, a special study group within NBE, comprised of the heads of each subject sector, has material for setting up proposals for the budgets for R & D activities for the following year.

Where it is particularly a question of project proposals within the educational-scientific area (under L.4:1), a planning council comprised of three qualified researchers appointed by the co-operating scientific institutions also has the task of participating in the evaluation and granting of priorities, mainly from a scientific point of view.

Of almost 9 million Swedish kronor available during the present academic year (1970/71) to L.4:1 for a total of 58 different projects, approximately half a million has been used by the section itself for preparation and planning. Another half a million is being spent on various forms of information activity on the different projects.

The variations in the funds allocated to the different projects in 1970/71 lie between 20,000 and 550,000 Swedish kronor. Some of the projects extend over just one year, while other, larger projects last for 7-8 years. In the latter case the total sum for the projects may amount to several million Swedish kronor.

The projects can, of course, be listed by category in different ways, for example according to the level in the educational system where the data is collected, the school subject or the general research area to which they belong. A division according to the latter listing may look like this:

CATEGORISATION OF PROJECTS

	Grant for 1970/71 (in thousands of Swedish kronor)
School development in broad outline:	
Surveying of trends and needs of education	538
School as an institution:	
School organisation	860
Personnel (teachers, etc.)	760
Education:	
1. Aims	410
2. Methods	2,845
3. Teaching aids	1,170
4. Evaluation	380
Individual development and adjustment	590
TOTAL	7,553

The statistics clearly express a current very high priority for projects within the field of education methods and education means: approximately 53 per cent of the available funds are granted for these two sectors.

Even with the fairly broad financial framework for research projects, it can be asked with a great deal of justification if the number of projects (58) is not too large. From the point of view of sheer effectiveness it would obviously be advantageous to concentrate the funds on fewer projects in order to push these through at a more rapid rate and on a higher level of quality. However consideration must also be given to the underlying strategy, which consists in activating dissimilar research efforts in conjunction with the pedagogical institutions at the schools of education. NBE is also, of course, responsible for the training that is given at these institutions. The strengthening of research activity here offers a better basis for increased quality in the training of teachers. This broader view of strategy in promoting the development of the school system is characteristic of Swedish society.

Teaching Aids Research and Development: Section L.4:2

Within this field there are only a few projects, out of approximately 70, that have been allotted to institutions at teacher training colleges, universities or to other research institutions. The majority of the projects are thus carried out within the section L.4:2 or by other working units within the NBE.

The section works with limited projects for which experts, who are available or are hired, function within NBE as project leaders and project workers. The projects referred to here are, as a rule, small ones and run for shorter periods than those research projects mentioned above. During this present year they have a budget of about 5 million Swedish kronor.

In general the projects can be divided into the following two main types:

a) description (mainly in operational terms) and definition of the objectives, for the school and for the individual subject,

b) selection and development of media to achieve these objectives.

The work here is based on both teaching plans and frames that are otherwise available and on the development-oriented activity - reforms - in this field.

The section has close, regular contact with the instruction departments (UA and UY) within the NBE, and furnishes them with descriptions, analyses and evaluations that can help in further instruction planning; with the starting point in accepted, as well as in prospective teaching plans, and methods programmes.

While a great deal of the activity is on methodological questions, not least in conjunction with analytical problems, an attempt is also made to fulfil the fixed working goals through the preparation of teaching aid prototypes and teaching aid models. This is done especially within areas to which it is desired to give high priority, and where educational aids producers do not find it profitable to engage in production and development work.

A relatively extensive contact and information activity characterises a third feature in the strategy of L.4:2. They have established co-operative groups with the educational aids producers, for example. Contact for special projects is also sought, particularly when new requirements arise fairly unexpectedly. An example of this is the educational situation that has arisen in conjunction with a sharply increasing immigration from countries with very dissimilar languages. To a certain degree one may also include teaching aids for pre-school teaching and adult education in this category. NBE has special agreements with the newly-established Government-owned Educational Publishing Company (Utbildningsförlaget). This publishing company was founded on the initiative of the Government as a non-profit making firm for the production and distribution of educational aids. The State owns half the publishing company, a quarter is owned by Sweden's communities and a quarter by the Co-operative Association (Kooperativa förbundet).

When production service is required within the framework of the NBE-supported R & D activity, this is to be taken care of by the Educational Publishing Company. This is intended to prevent a gap arising between development work and production. The NBE's relationship with the publishing company is therefore meant to be special, quantitatively as well as qualitatively.

Among the school system's personnel - the ordinary teachers as well as the administration - a fairly widespread scepticism, even dissatisfaction, can be noted on the centralised teaching aids production taking place under the direction of the Educational Publishing Company. It is claimed that production is too slow. Nor do prices appear to be any lower, whereas reduced prices was the assumption on which founding the publishing company was based.

The section also co-operates with the users where educational aids are concerned. The individual communities, their organisations, the teachers' trade unions and radio/TV are some of the most frequent contact and co-operative partners. In this way the centrally-led research and development work receives useful reactions that can have a significant feedback effect.

Evaluation of School Activity: Section L.4:3

The work projects assigned to this section are also to a great extent solved by its own officials, at least where the professional, theoretical aspects of the projects are concerned.

Up to now L.4:3 has been employed to a high degree in constructing and distributing testing instruments, especially pedagogical tests, for use at various levels in different types of schools.

In this design work the section has employed about 150 subject experts who participate in the general planning of tests and in making proposals for individual items within their [illegible] subject areas.

The aim has been - and still is - to give service to the school in this sector. Strategic plans have not been made in order to guide the work of teaching in that manner, even though the people involved are aware of and have worked a great deal with the question of the feedback effect these tests both can and do have on the practical work of teaching. In reality this (with a grant of about 2 million Swedish kronor) is often a stronger and more effective means of reorganising instruction than is the in-service training of teachers, centrally planned by NBE (for which about 25 million Swedish kronor from Government funds are used).

The tests are used first and foremost as a means of normalising the setting of grades in the school.

In the gymnasium the central examinations are compulsory, they are given continuously in approximately ten different subjects. The so-called standard achievement tests in the comprehensive school are a voluntary matter for the teachers, who may decide whether they want to use them or not. In practice most of the tests are used in almost all classes all over the country.

On the basis of the latest curriculum guides - and to an even stronger degree on the outlines for the next curriculum guides - greater emphasis is placed on non-cognitive aspects in schools' teaching and the teaching they wish to promote. The section is now also placing greater emphasis than before on the design of evaluation and observation instruments, for example, for social and emotional development and for physical education. This may be said to be a continuation of the earlier programmes for systematic observation.

Diagnostic tests and other qualitative instruments are also in the process of further development for vocational training. Aptitude tests for use in the people's high schools and for younger students are being designed and will be able to offer a supplementary basis for study counselling.

Particularly during the last two or three years there have been protests from pupils and their organisations, and from the general public (in newspapers and other communications media) at the central standard achievement tests. It is claimed that the centralised school authorities can thereby manipulate the students, exert too much influence on the specific knowledge and on what parts of subjects the pupils are to work with and learn. In some cases the pupils have deliberately refused to take the tests presented to them.

Development Activity Outside Bureau L.4

Projects included in the NBE's development appropriations are also to be found in other divisions than the Bureau. Approximately a quarter of the total appropriations to research and development projects are included in this category.

Earlier (in Chapter V) it was pointed out that in several of the educational aids projects there is close contact between L.4 and UA/UY. The two latter departments also have their own projects in operation, particularly on the development of curriculum guides. Even though consideration must of course be taken of the research and experimental results that appear through the larger and, professionally speaking, better founded projects, it has been considered expedient that the teaching departments themselves set up relevant projects and lead them. These projects are usually strongly practical and have previously, as a rule, not made the same research demands as to design and implementation as is the case with the projects under the auspices of the R & D unit.

This is true, for example, of the project that has just been put into operation, a follow-up study of the curriculum guide in the 9-year comprehensive school (the LUG-project). On the basis created by the continuous, systematic collection and analysis of information on the recently introduced curriculum guide for the comprehensive school (Lgr 69), it will be possible, according to need, to successively present proposals for changes in this plan, so that there will be a steadily improved correlation between aims and results.

NBE's appropriations to the so-called "experimental blocks" or "development blocks" are also granted through the budget of the instruction department. These are development units built on community school systems. By participating in the planning and the support of special community development measures, NBE believes that it can initiate a more rapid and more extensive change-process in the regions in question, at the same time as new curriculum proposals are tried out in the practical school situation. Every "development block" receives central support for five years. The individual community school authorities bear the greatest burden in this connection, however, economically as well as where planning and implementation are concerned.

The first appropriations to the "development block" were given in 1964 (to Malmø). (Malmø is one of those innovative regions described in another case study in this series).

Several "development blocks" have already been in operation for five years and thus will now lose their central appropriations (Malmø, Kalmar). These regions are now attempting to continue on the basis of the development there has been during the course of the five year subsidised period. A total of six development blocks are receiving support at present (school year 1970/71).

"Development blocks"as a strategy for development and innovation have been hotly discussed. From central sources (NBE) it has been maintained that it is not possible to build on these blocks where ordinary R & D activity is concerned. In practice however, the blocks have in several cases represented very valuable additions to the more centrally-led development work. To some degree direct research efforts of great value have also been started. In particular it has been possible to observe a shorter path than is usual between development projects in the blocks and the practical implementation of new measures in the school.

Dissemination

Gradually, as the larger research projects and extensive experimental and development measures are concluded, one question arises with particular force: how can new insight and the conclusions which are drawn reach the various parts of the school - and society in general - so that they can have consequences for the practical school situation, and primarily for those pupils and teachers whose place of work it is?

Problems of this kind are international. They have not been solved by the Swedes, either, but various strategies have been tried in order to achieve this ambitious goal.

In some cases development work will be of the type that almost naturally leads on to the practical implementation of what has been the content of the projects. This is done most clearly, perhaps, in connection with the "development blocks". In other cases emphasis is placed on distributing the results in the form of teaching aids, after the necessary revisions have been made in relation to the tested prototypes. The same is also true in connection with the more extensive teaching aids systems. Significant experience has been won on this by development and marketing of the now internationally known material methods system, IMU (individual mathematics instruction - see Malmö case study for detail).

The in-service training of teachers is another important point in this context. Centrally this activity is led by several sections within NBE (but in particular by L.3). The offers of in-service training reach the teachers from several sources, but especially through the teacher training colleges, the county school boards, the teachers' organisations, voluntary popular information measures as well as through radio and TV, which has been used more systematically for in-service training and dissemination than in most other European countries.

A part of NBE's strategy for R & D is that the research results should easily and rapidly benefit teacher training and supplementary teacher training. This is done by placing most of the R & D projects at the teacher training colleges' educational institutions, where several of the colleges' employees participate actively. The idea is that the teacher-candidates also, to a certain extent, should be allowed to work on or participate in the projects and their results.

It has been noted that many of the reform plans passed by the Government and other central authorities have not been implemented at anywhere near the same rate that was assumed or decided. This indicates that a discussion of strategies and efforts for the dissemination process must continue to be given high priority. In this context it would be reasonable to depend, to a higher degree than has hitherto been the case, on regional and local administrations by allowing these administrations greater resources for refresher courses and consultant services.

Chapter VI

INNOVATION ACTIVITIES

Innovation activities are selected and put into operation according to the general policy which has been decided upon, those goals which have been incorporated into it and the strategy that has been chosen.

In working out priorities in the activities that can be considered within this framework, further emphasis is placed on the following conditions:

a) The urgency of the problem from an educational point of view.

b) Availability of research personnel.

c) The significance of projects from a research point of view.

d) The scope of application of the results of projects.

Training Research Staff

Apart from the in-service training which the everyday work, including special conferences and seminars within the R & D unit (L.4) allows an opportunity for, NBE - through L.4 - has made systematic attempts to increase personnel resources by

a) arranging courses in educational technology (in co-operation with the University of Gothenburg) and

b) producing study material in educational technology in collaboration with the Office of the Chancellor of the Swedish Universities.

Other forms of training are given by academic supervisors and tutorial staff directly to coming and in-service researchers at the various educational institutes, as integral parts of the ongoing projects or of their ordinary academic training.

In their comments on the educational research and planning in Sweden, Passow and Postletwhite (Passow, H. & Postletwhite: A further look at educational research and planning in Sweden, as carried out by the National Board of Education through Bureau L.4:1. 1970, page 7) point to the fact that the on-the-job apprenticeship scheme for training has its justification. They recommend, however, that a more systematic and comprehensive training in evaluation techniques should be provided, particularly in the fields of design, instrument construction and statistical analyses. Each institute ought to organise continuous seminars for all project research personnel (or groups of them) "where all aspects of each project from the conceptualisation to the publication state are discussed".

In the next chapter there will be more discussion of current efforts to develop possibilities in this field.

Projects Assigned to Research Institutions at Universities and Schools of Education

As was pointed out earlier the projects that are financed through the NBE but carried out at various behavioural scientific institutions, can be placed in categories in several ways. In Appendix I there is an overview of the sectors, divided into seven groups, and examples of the current projects within each group.

A Project Prototype

In order to offer a more detailed outline of how one of the more extensive research projects is planned and carried out the SAG-Project ("Independent Work in the Gymnasium") will be described here.

The Secondary School Committee, which was appointed in 1960, presented its recommendations in 1963, containing guidelines for the content of a new gymnasium. Increased emphasis, it said, must be placed on the pupils' independent work, a fact also stressed by the new curriculum guide for the gymnasium.

On this basis Bureau L.4, in June 1964, assigned a special working group at the School of Education in Stockholm the task of planning experimental activity aimed at giving content to the general goals and guidelines that had been drawn up.

After the working group had presented its proposal, containing a programme for a project, in the spring of 1965, this was discussed in Bureau L.4 and with their expert consultants. It was then presented to the Board, which resolved in June 1965 that the project would be put into operation, beginning in autumn 1965, on the lines of the proposal that had been put forward.

The purpose of the project was outlined briefly in this way:

to try out an instruction-methods framework for developing pupils' ability to work on their own,

to define the demands made by the use of this instructional framework on printed study material, in particular the formulation of the broader plan, the components in the material and their functions,

to present recommendations on the procedure required in the production of such study materials,

to study factors in pupils that influence their attitudes towards working on their own during a major part of the curriculum-determined school-day.

The administration of the project was placed in the hands of the educational psychological institution at the School of Education in Stockholm, with a professor responsible for the scientific content.

The money for operating the project was given to the School of Education (in the person of its president) for one fiscal year at a time, based on the proposed budget of the project leader, usually the head of the institute of educational research within the School of Education. In other words, it is the president of the school who, technically speaking, accepts the money and is responsible for its use, while the project is planned and carried out by the professor as leader of the research institute and the person with scientific responsibility for the project.

In their Further Look at Educational Research and Planning in Sweden, Professors Passow and Postletwhite remarked on this sharing of the fiscal and planning responsibilities of a project:

> "This organisation is understandable from historical and institutional points of view and for the time being should probably be continued. However, as the size of the research activity grows, the organisation should be reviewed periodically, since the time will surely come when an institute reaches a size when it should be fiscally completely autonomous".

This organisational question was again commented on and discussed during the year following their comments, and there is reason to expect that a change, roughly along the lines of what has been indicated above, may become a reality fairly soon.

From the very beginning the SAG-Project was planned with the following four phases for implementation:

1. Formulation of the instructional methodology; through a measurements analysis the criteria of independence and the ability for independent study are specified,
2. explorative experimental activity; materials and methodology are tried out in classes with running observations and successive modifications in order to improve and underline the pattern of instruction,
3. experimental evaluation through controlled field experiments which are to try the general application of the results achieved during phase two,
3. dissemination of methods, materials and research results to the schools concerned, etc.

From the start no absolute time schedule was set up, but it was suggested that it would be necessary for the project to extend over a number of years. The final report is now in process of being written, but 8-10 mimeographed reports have also been issued on project activity and provisional results.

The study materials which were planned at the beginning concentrated on mathematics and history. Instruction was planned according to a model which, briefly, meant that the courses were divided into sections in which different kinds of activities varied according to definite rhythms: introduction and stimulation, the working up of the basic course, diagnostic tests (with reference to the continued study of the basic course or to supplementary projects), working with and reporting on the supplementary projects (individually, in groups or to the whole class), co-ordinating and reporting. The task of the teacher is mainly to stimulate, supervise and guide.

At the end of the second experimental year (1967) the mathematics programme was withdrawn from this project, as it was taken over by the larger IMU project. The later phases of SAG have therefore been concentrated on the subject of history in the gymnasium.

After three years of experiment, at the instigation of NBE, a preliminary version of the planned and revised study material was published. (History on Your Own, 1st year, (The Educational Publishing Company), with teacher's instructions and set of slides). The material is divided into four periods: the Middle Ages, the Age of the Renaissance, the Age of Absolute Monarchy and the Age of Enlightenment. For each age the book contains the following components:

an introductory section, with coloured pictures and a very short synopsis of the epoch, as well as study-technical instructions for the pupil so that he can have an idea of the book's presentation of the period,

a description of the age in text and pictures, divided into four chapters,

study instructions for the various chapters (a written guide for the pupils to study),

questions on the chapters, which are to be answered,

practical projects, with key and commentaries,

questions for self-checking with a key,

summary projects (repetition questions).

As aids for talks and group discussions there are also special projects co-ordinated on one theme. A comprehensive section has been worked out for each age, with projects that take up the subject more thoroughly, of optional degrees of difficulty. It is estimated that 25 to 50 per cent of the time allotted to each period is to be used in working on these projects. It should also be mentioned here that at various places in the material short articles with study-technical themes have been worked in, such as how to find material in reference books, how to study source material, how to use a library.

History on Your Own has also been completed, with materials, for the other two gymnasium levels. This material has also been published by the Educational Publishing Company.

In the follow-up and evaluation of the experiment, a great deal of data has been collected by means of

- intelligence tests (terms, concepts, contexts, utilisation and analysis, interpretation of maps and pictures),
- tests on studying ability (listening, ways of phrasing questions, knowledge of the techniques of working on independent projects, study of maps, tables, diagrams, pictures and texts),
- interest in history as a subject in relation to other subjects,
- judgment of how interesting and productive the work in the history classes has been.

Development of Teaching Aids

Innovation within the field of educational aids has been the subject of study for the NBE for many years. However, it is now possible to see a clear development in goals and activity in this field.

To begin with, the activity within this field was mainly directed towards technical aids (hardware), and consisted primarily of working out methodical instructions as to how these could be used. Setting up lists of equipment, dissemination of technical information, displaying activities and similar measures with the purpose of easing the educational aids users' choice of products and stimulate them to increased use of them, were also considered to be relevant activities. Special attention was gradually devoted to the sectors of teaching aids such as instruction films, language laboratories, school radio/TV and programmed material.

As long as the main emphasis was on these activities it was natural that they were directed by the more general educational departments within NBE. However, the people who directed the work of the teaching aids development wanted gradually to place more emphasis on the principle aspects of this area which is so very important for the development of the school and teaching. The technological system which was also developed within the educational field made its clear imprint on the continued activity. This trend in work with development of educational aids has been particularly evident since the end of 1967.

During the course of two years, from 1967 to 1969, the pedagogically-technologically oriented experts who were working on the questions of educational aids had developed their ideas and their system so far and so explicitly that an evaluation had to be made as to whether the work should continue along these lines and where, in that event, it should be placed in the NBE organisation.

The result of the discussions was that the teaching aids unit, as it had gradually come to be known within the instruction department, was transferred to the Bureau as a separate section (L.4:2). The leader of the activity and the others who had been right in the midst of the development of the technological model, moved with the section when it was reorganised.

Thus a sort of "budding activity" took place. Naturally enough, the question of educational aids continued to be a central one in the instruction departments, but now in close contact with the new section which works more on developing analyses, models and evaluation programmes.

A more detailed description of current activities in developing teaching aids is given in Appendix 2.

Evaluation and Testing

The background for the section for evaluations, marks and tests is to be found in the responsibility which the NBE has had ever since the 1940s for tests which were to be used in the school. Great stress was placed on achievement tests, beginning in 1949 when the entrance examinations to the lower secondary level were abolished. The selection was then made according to school marks. Ever since, standardised achievement tests have been used as a regular part of the evaluation in the compulsory school, and since 1964 they have also been used for the upper secondary level. Even though it is optional for the teacher to use the standard achievements tests in the comprehensive school, they are now taken by 90-95 per cent of all pupils. In the "gymnasium" all pupils have to take the prescribed tests, as part of efforts to equalise the evaluations on a national basis.

At first, the construction of the tests was done by authorities outside the Board (the universities and, later on, the School of Education of Stockholm). Since 1965 section L.4:3 has taken over this responsibility and the production of the tests.

An overview of the test construction work is given in Appendix 3.

The section is engaged in the work of trying out and constructing other evaluation instruments, among them programmes for the systematic observation of pupils. A project has been started that aims at drawing up evaluation and observation instruments for the non-cognitive results in the school, such as the social and emotional development of individuals and groups, aesthetic upbringing and physical education. According to the curricula guidelines these non-cognitive results of the school work are supposed to be as important as subject knowledge and skills. However, the chances for teachers and school leaders to make objective and controlled observations and evaluations in these non-cognitive learning areas have so far been very limited. In connection with a project (see Appendix 1) on "Adaptation, Behaviour, Performance", the first practical trials of such scales have been launched.

The section also makes evaluations and statements on current research studies on evaluation and testing, especially within NBE. Only to a very slight degree has it assigned such special projects to the universities and schools of education. Its own projects include evaluation methods in vocational training assessment given at the folk high schools and measuring instruments for foreign language in adult education.

Aptitude tests in relation to further studies are also being considered as a problem unit by the professionals in the section. No other section in the L4 bureau has as large a professional research staff as this one.

The section has clearly realised a new trend in the development of evaluation instruments, pointing out that such instruments will increasingly be constructed as a part of a teaching aid. Textbooks for pupils, teacher guidelines, working materials for independent study are often combined. This combination will then usually include tests for both diagnosis and final evaluation. It is foreseen that this systems approach in education will be utilised more and more, making testing a regular part of school work.

This development will lead to questions of evaluation having an even closer relationship to the work and the approach which has been mentioned within section L.4:2 (see Appendix 2). The continuous evaluation must then, to a higher degree than formerly, be considered in relation to the questions of goals and the development of teaching aids.

A further, relevant question will then be how to supply everyday work in school with testing materials. The NBE is now investigating the possibilities for establishing a central test-item bank to serve this need.

In this context there will be further consideration as to whether direct test-production and other repetitive routines which today are an important part of the section's activities, should be transferred to a more independent unit outside NBE's administrative sphere. Then the section would be able to concentrate to a greater degree and expand its activity to the drawing up of new methods, models and prototypes within the field of evaluation, and lead research within this field. From this section too it would then be possible to initiate larger and more future-oriented projects, enter into the other sections' evaluation problems to a greater degree, and thus become more of a development unit.

Development in Other Sections of NBE

As has already been pointed out, no less than approximately a quarter of the total funds for research and development are administered by other sections (outside the Bureau) within NBE. These are almost entirely projects that can fairly obviously be placed in the development category. However, the personnel from the Bureau as a rule are a part of the planning groups within NBE which administers this development work.

Most of these projects are under the administration of the Department for general school questions (UA) and the Bureau for general teacher training (L1), but smaller and more limited projects have also been assigned to several other sections, for instance that responsible for vocational training.

The largest projects, which also are allotted the greatest resources, are concerned with the development of curriculum guides for different types of school and at various levels, including extensive studies in connection with a follow-up of curriculum guides and evaluation of how these work in practice.

From a special item in the budget for research and development, subsidies are given to the previously-mentioned experimental educational areas (blocks) work-groups that prepare experimental programmes and smaller, more specialised projects.

In development activities in the Swedish school the experimental educational areas represent a sort of spearhead. Since 1967 one of the northernmost city areas, Skellefteå, has been an experimental educational area.

In the same manner as for the other, similar areas, the development programme in its main features has been drawn up by experts from the NBE (staff from the instruction bureau - UA 1, as well as Bureau L.4 have been represented), together with the local school authorities, school leader(s), experiment supervisors and assistants. In the planning and follow-up group, pedagogical-scientific expertise is also represented. In the Skellefteå project the nearest professor of education, from the University and School of Education in Umeå (about 140 kilometres away), is a member of the team as a special expert on design, data collection and processing as well as evaluation. In this way, even in this most distant region, in relation to the central organisation in the nation's capital, a working team has been established that maintains the highest professional qualifications.

The educational, experimental, and development activity has a budget which, in addition to finance for the ordinary operations of the school, amounts to approximately 250,000 Swedish kronor per year. Of this NBE allocates (transfers) approximately 90,000 Swedish kronor, an amount which in the last two years of the five-year period will be de-escalated to 60,000 and 30,000 Swedish kronor, respectively. The largest investment from a financial point of view is thus made by the local/regional school authorities.

The Skellefteå plan has chosen to concentrate its efforts mainly on one comparatively extensive project, with experiments concentrated on one school, and to the lower secondary school (upper stage, grades 7-9). The project (PEDO - Pedagogical Organisational Experiment) places particularly great emphasis on trying out flexible organisation models. Among the items in the programme are:

varying pupil groupings,

flexible, and as a rule, extended work-units,

free use of time within each subject frame at the different class levels,

simplified organisation of the elective subjects - new electives choices,

reading of lessons at school,

use of teaching assistants,

independent and laboratory working method,

material grouping in the working sectors,

pupil-teaching study materials instead of textbooks,

co-operation, teachers-pupils, teachers-teachers, pupils-pupils.

The interim reports which, among other things, explain the organisation models, the study materials, etc., are being drawn up little by little. Under the guidance of the professor of education advanced students at the University of Umeå are writing their theses with data from the experiment as their basis.

Teachers who participate actively in the implementation of the experiment soon become counsellors for their colleagues at other schools in the region and also further away.

Documentation, Information, Dissemination

The information and contact activity should, in a research and innovation connotation, be able to follow several paths and include several activities. In the first place there is a need on the part of the planners and the researchers to gain knowledge of earlier research and innovative thinking, strategies and results. Such documentation must be obtained from national as well as international sources. There will also be a need to document one's own thinking and one's own results for other people. And here again it is necessary to consider the project in a national as well as an international perspective.

Along with increased efforts on the research and innovation side people have become more aware of the need to reach out into the field, to the grass roots, so to speak, with information which can then result in activity, expanded innovation. In Sweden people are becoming increasingly preoccupied with this problem of dissemination and of solving it in a satisfactory manner.

Documentation

The central research and development administration in the NBE as well as most of the institutions that carry out school research in co-operation with NBE have access to good libraries in addition to the literature (including the periodicals subscribed to) to be found at the institution itself. Although in addition there is extensive contact with foreign colleagues and institutions, a more rapid and larger documentation service is needed today for those who are to lead and engage in innovation activities in education.

Discussion has been going on for a long time in Sweden, even before Passow and Postletwhite reported on how to solve problems of documentation. The National Educational Psychology Library in Stockholm has unusually good up-to-date documentation in the form of books and periodicals. In addition, however, it is necessary to have new and more effective ways of storing documented material, using data-processing aids. An efficient system for the ordering of relevant information through different display consoles is needed. Several systems have been studied; one of them is called ERIC. There have also been negotiations with and within the European Council, among other bodies, on these problems.

An official committee (Educational Survey Committee - Pedagogikutredningen) appointed in 1967, suggests that the National Educational Psychology Library should start experiments in the documentation field. It suggests that the user demand within central and regional school management should also be taken into consideration. Extensive experiments, including the use of computors and microfilm, should be connected with international efforts in this field.

The Swedish Riksdag will very probably make funds (100,000 Swedish kronor) available as of 1 July 1971, so that staff can be engaged for experimental activity with the documentation service at the National Educational Psychological Library. The board of the library is to have responsibility for the experiments to be carried out in consultation with NBE and the Office of the Chancellor of the Universities.

Information

NBE has a general information responsibility which to a fairly great extent is carried out through, or with the assistance of its own information bureau (Is). Bureau L.4 also has a special responsibility for information on research and development. This is carried out in a great many different ways and it is difficult to see any whole and unified strategy.

Within and up through the school system, information is given mainly through advance work for and proposals on budget requests for the following year. The various sections are drawn into this work, and thus the Board receives direct information as a basis for its decisions.

During the course of the year much information follows this same path. This is true of provisional synopses, memoranda, reports from working groups, provisional reports from the various projects, etc. In special sections there is also an information newsletter which is printed every year about the various projects, with a good summary of the projects and descriptions of their implementation. This newsletter is issued both in Swedish and in English. The English version is distributed to approximately 600 recipients outside Scandinavia.

For internal information within NBE there is, in addition, a special report and borrowing system using special small notebook sheets. The catalogue which is collected every year on current school research in Sweden - that administered by NBE as well as other school research - gives a good summary for internal use, also, and offers starting points and references for running formal and informal conferences and contacts on the internal level.

Externally and down through the school system a series of reports (newsletters), along with the project catalogue mentioned above, reaches a broader public. To the extent that they are read this will also be true of larger, preliminary reports, partial reports and final reports on the various projects. All this material is distributed as widely as possible within those circles that are at all interested in it, including the teachers' organisations and regional and community school authorities.

The NBE's own publication, PM (Educational Information from NBE -

Pedagogiska meddelanden från SØ) often carries material on the individual projects in the form of synopses and new plans within R & D.

For special occasions NBE draws up very extensive information plans, partly by bringing the mass-media - and primarily radio and TV - into the picture. This was done, for example, when a large number of teachers in comprehensive schools were to be told of the new content of mathematics teaching, and that English training should begin with the 3rd grade level instead of the 4th. The latest example of nation-wide information on development aspects is that concerning the introduction of a new curriculum guide in the gymnasium (Lgy 1971). Thoroughly planned basic study material was sent to every single teacher in the gymnasium, along with the curriculum guide itself, before the first of a series of television programmes were shown, directed particularly to these teachers. Special study days were made available for them to watch the programmes, go through and discuss the study material and, with their colleagues, discuss local and specific problems. In this manner the whole of the teaching corps which is to introduce the new plan, beginning in autumn 1971, has been prepared on the new content and its consequences before the preceding school year has ended.

In this context it should also be noted that the teachers' organisations' periodicals and other independent professional periodicals (such as the Educational Times, Utbildningstidningen) give high priority to material on educational development. Through these channels therefore a great deal of information is spread, information that often leads to the readers becoming aware of results and views on which they then seek more information.

A similar information role is also played by the Swedish daily newspapers, radio and TV, which devote much attention to educational innovation aspects, and very frequently subject these to debate. In this way, too, general reactions from the broader levels of the nation can return as feed-back to those who are doing the administering, or more directly influence the goals, content and strategy of the innovations.

The information bureau (Is) in the NBE also sees to it that employees within NBE are kept informed on pedagogical discussion all over the country. The bureau does this every day by giving each of the employees a short summary of what the daily papers all over the country contain in the way of news and debates on the school system, education and development work.

Dissemination

No total strategy for the process of dissemination is to be found, but there are many units that can be influenced and which allow themselves to be influenced with the objective of spreading functional knowledge and thereby putting desired innovation into operation.

The most general goals one can hope to achieve through studies, planning, research and development activity within the school are, through increased knowledge and expanded insight, to influence attitudes to and basic understanding of instruction and training and of the school and education. In this context the nation as a whole is seen as a "goals group", but some more limited groups will be of greater importance than others. Here one thinks first of the politicians, the administration, research groups and others who work in the school or teach outside the formal school situation.

Innovations can be more directly introduced into the schools through new laws and new curriculum guides. In recent years NBE has consciously aimed at rolling curriculum reforms, not only in the gymnasium but in other types of school, too. In this way new insight, gained through research and development, can fairly quickly have consequences for those plans and decisions which are to be valid for the school. Even though it is now stressed, especially by the teachers, that new curriculum guides and reforms must not be introduced as rapidly as has been the case in recent years, there is a very effective strategy for the dissemination of innovations in the rolling curriculum reforms. With this aim in mind it should be taken for granted that there must be constant, close contact between those who are responsible for the development of curriculum guides and the R & D units. This seems to be the case within the NBE.

In close conjunction with the curriculum guides, also from the point of view of dissemination, are teaching aids. The strategy chosen by NBE for research and development will, as we have seen, increasingly govern in many ways the production of teaching aids. This production, for its part, is governed to a high degree by the goals of the curriculum guides. In practice, in the school, the teaching aids would then be able to appear as an incarnation of those goals and the innovations towards which the curriculum guide is oriented. Gradually, as teaching aids become a more significant part of education at all levels, and particularly whenever extensive material-methods systems are put to use, this will become a highway for innovation. It is already happening.

Another natural channel which is also used for purposes of dissemination is supplementary-teacher-training. Every year considerable economic resources are used for this, and the people who plan these courses centrally (within NBE) appear to be very conscious of the possibilities they hold for paving the way for desired innovations. Close contact between development work and those concerned with supplementary-teacher-training is very necessary. This work is also made easier because the two bureaux most involved here are of equal rank in the organisational plan (L.4 and L.3, respectively). Those working on the practical implementation of supplementary-teacher-training regionally and locally (in particular at the schools of education), should become conscious of this policy and strategy to an even higher degree in future.

The development blocks also represent important routes for approaching the school when this is necessary with information and the implementation of new organisation, methods and teaching aids. This route could undoubtedly be used more systematically than it has been so far.

Grades and other forms of evaluation can also be a very powerful incentive, but will not be able to replace other possible activities for hastening desirable innovations. Evaluation will also gradually become of greater significance as forms of it are further developed along the lines already described (see Chapter VI and Appendix 3). This will be true in particular of the broader aim for evaluation, which takes into consideration the non-cognitive aspects of development, puts increased emphasis on diagnostics and - not least - draws up guidelines for the consequences these test results should have in teaching.

As an example of co-ordinated dissemination activity there is the extensive supplementary-teacher-training programme to which different working units contributed and which was centrally led by NBE's supplementary-teacher-training bureau, for the introduction in 1969 of the new curriculum guide for the comprehensive school (Lgr 69). The programme was planned completely according to a teaching-technological pattern, with specific days for the school leaders and the teachers, on which radio, TV and supplementary training consultants co-operated in a total programme.

Another example of similar information dissemination is the so-called JET-project (Junior English Teaching), in which most of the country's teachers for grades 1-3 prepared themselves during a two-year period for the introduction of English as a compulsory subject at lower elementary levels through a series of radio programmes combined with self-instruction on the basis of ready-made materials.

Chapter VII

CONCLUSION

As will be evident from the summary and case study which have been presented in Chapters I - VI, the centrally administered innovation activity in Sweden extends over a number of fields and administrative units. For this reason it has not been possible to limit this presentation to one bureau or to one section within the NBE, even though there is no doubt which unit is most central in this picture - the one which has been called the R & D unit (Bureau L.4) in the above paragraphs.

Background to Reform 1940-1970

When a person from outside becomes acquainted with the many school reforms and new ideas in the Swedish school and educational system presented during the last few decades, he is invariably impressed. The question then comes up: how has it been possible to do all this, even during a period when changes in this field as well as in a number of others have generally taken place at a more rapid rate than at any time previously, both in this country and in any other comparable countries?

Naturally enough, there is a network of factors, material as well as non-material.

In discussing these factors with those who have experienced these intense reform decades at first hand, one meets the fairly clearly expressed idea that the most significant forces behind the demands for reform and change have come from outside, from the people themselves in elected politicians, and not primarily from professional educational and school administrative sources.

On political and quite often social premises, influential individuals and their organisations, political as well as professional, had found that the existing educational system was not satisfactory. And they were often able, in an effective manner, to articulate their views. In the next round there was a fertile interaction among these influential individuals and groups on the one hand, and the existing executive bodies, mainly in the political administration of the country's Ministry of Education, on the other. The leaders of this ministry during the 30-year period, appear without exception to have become very strongly involved in the new ideas and reform in education. On the basis of this it may also be said that the people who have been placed in strategic jobs have also been one of the central factors in the re-organisation of the framework of the school system.

Where administration is concerned, and in particular the NBE, it is apparent that its role in taking the initiative and being able to carry out innovations has pursued a very radical, new course, following the re-organisation that took place in 1964. Until that time the function of the NBE appears mainly to have been that of supervising, controlling and in other ways carrying out financial duties. It is said that, up to that time, in many ways they were walking backwards into the future. Very little work was being done with prognoses and innovations, and practically no attention at all was paid to content and the qualitative aspects of the school's activity.

And it is in just this qualitative field that the new NBE of 1964, which has been described in the preceding chapters, has made its mark as initiator as well as a powerful apparatus for implementing innovations, and to a certain extent, also, where it has been a matter of solving current problems of dissemination.

Current Points of Growth in Innovation and Change

Against the background of the case study presented above, and the basis on which it is built, it is neither desirable nor possible to offer any kind of a total evaluation of the centrally steered innovation and reform activity in Sweden.

There is reason, however, to draw attention to certain points; one can perhaps call them possible points of growth. These represent themes which the reviewer will find it natural to meet again in further discussion, in action programmes and realisation in conjunction with the constantly expanding innovation and reform efforts within the Swedish school system.

Teacher Training

The training of teachers for Swedish schools has experienced a number of expansions, integrations and reforms during the last few decades. Even so, expansion has not been able, even in Sweden, to keep pace with developments in the school. Theoretically it has been obvious that school reforms and innovations on the one hand and teacher-training on the other have a close relationship to one another. In practice, however, it has not been possible to expand the basic training and refresher training of the teachers at a reasonable rate to keep pace with reform.

In this context it has been pointed out that there is an increased need for teacher-training research and unconventional experimental activity in this field. "Our teacher-candidates are constantly being thrown carelessly from general theory into what is almost planless practice." (Bjerstedt, Å: "Svensk skolforskning. Några aktuella utvecklingstendenser". p.11). There are several surveys in progress now which have questions on teacher-training built into their frames of reference. This is mainly true of the Teacher Training Committee of 1968, which is to discuss the education of teachers in the practical and aesthetic subjects. The Vocational Training Council is concerned with the "vocational aspect" and the 1968 Educational Committee (U 68) is working on prior knowledge as a basis for teacher training.

The need for a new total evaluation of the further development of the training of teachers, considered primarily in relation to current reform and innovation strategy, has already made itself felt.

Refresher Training

Refresher training of teachers is carried out today under the auspices of several different institutions, but mainly by the central administration of the NBE, the regional school administration, and the teachers' organisations. The operation of courses and training units is otherwise carried out to a great extent also at the country's schools of education, but the regional county school boards and adult training units administer refresher courses for teachers, too. It appears to be possible to have an even more extensive co-ordination of refresher-training without this necessarily meaning uniformity and an increased degree of administration. The resources that can be used in refresher training of teachers, can presumably be made available most efficiently by concentrating the activity, or at least the co-ordination of the activity, in the six schools of education.

Dissemination

The dissemination process must be considered in close conjunction with the solving of the questions in refresher training. In this sector too a reasonable solution seems to be to utilise the possibilities that are already available at the six professional regions into which the country can be divided, with a school of education in each.

The educational research that is taking place at schools of education can be co-ordinated relatively simply with elementary training and refresher training of teachers and with the practical teaching that takes place in the experimental and demonstration schools attached to the schools of education. With a regional development of these educational laboratories it will also be possible to remain constantly in fairly close contact with teachers working in the schools, and bring them into the continuous, broadly planned innovation and reform. This course of developments is also indicated in a Royal Proposition (of 26 February 1971) to the Riksdag, concerning educational training and research, etc.

Training Researchers

Training researchers to ensure a supply of competent manpower for educational experimental and research work, is also discussed in the proposition mentioned in the above paragraph. A further expansion of the innovation and development work in the school is also dependent to a high degree on this factor's being granted a high priority. With the expertise and the experience gained within this sector the possibilities of being able to qualify the necessary personnel for future tasks should be very great. But in this event increased finances must be made available and a conscious granting of priorities must be made in order to meet the need that is already felt.

Long-term Planning

Those responsible for the Swedish school development have been more conscious of the need for long-term planning than have most people. Here too the research field of futurology is being actively investigated (see the project "Education in the Year 2000", led by Professor Torsten Husén). In this context the work of rolling reforms should be mentioned as something that has become more than just a slogan, particularly in the sector of curriculum development.

Having said that, however, there is reason to desire even more. A more detailed and thorough planning of school development on a longer-term basis would make it easier, for instance, to obtain the necessary non-specified research grants as a basis for concrete decisions, due to the fact that pedagogical research often demands long periods before results can be presented.

Having said all this, however, it must, in all justice, be stressed that few school systems and school reforms have been founded to the same degree on educational research as have the Swedish systems and reforms. For this reason, more than in most other places, the desirable connection between pedagogical and social scientific research, on the one hand, and the innovation work and school development on the other has been clearly recognised. It is because of this that the demand for a research basis for further development is proportionately greater in Sweden, at the same time as it is also more concretely formulated and more clearly integrated with long-term planning.

APPENDIXES

Appendix 1

RESEARCH PROJECTS

School Development in General

First and foremost in this group is the futurology project started in 1969 at the Pedagogical Institute at the School of Education in Stockholm, under the direction of Professor Torsten Husén: "Education in the Year 2000". The project has the character of "policy research", with the clear aim of forming a foundation for those people who are to make decisions on the future development of the Swedish school system.

Through another project a study will be made to find out to what extent a more systematic problem investigation could help in granting priority to school research.

A third example of project-types within the group "School development in general" is taken from special education "Studies on Schools for the Visually Handicapped" (the PUSS Project). One objective here is to chart the difficulties which confront the visually handicapped in school; another to improve their means of obtaining knowledge.

The School as an Institution, and School Organisation

On the basis of the emphasis in the curriculum guide that the school is to create an understanding of those groups who have special problems in modern society, a project is in progress on "Social Development and Upbringing in the Comprehensive School". Within the main study there are several sub-studies which examine the subject of the pupils' "world citizen responsibility" and their ability to take an independent stand and resist prejudiced influence.

At the School of Education in Malmø there is a project concerned with opportunities for young people to take part in school government, including planning and decision making.

Experiments with varying groups of pupils and team-teaching have been in progress for many years. In this context the question is also taken up of the length of particular lessons and the planning of larger sections of courses over longer periods of time. To a certain extent, new teaching aids are tried out in this project.

The School of Education in Umeå has been given responsibility for the project on "Prognosis of Progress in the Gymnasium". In conjunction with reform work in the upper secondary school there has been a great deal of attention paid, both by the Swedish and the inter-Scandinavian authorities, to the admission of pupils and their progress through this type of school. The need for instruments that can complement the more traditional grades has been emphasized in the planning of the project. The possibility of increasing the certainty of the prognosis where progress in the upper secondary school is concerned is also central here. Within the framework of the project a study of the setting of grades in the lower secondary school as well as in the upper secondary school will also be made.

School Personnel

A new school [illegible] in all probability, need personnel with, in part, a [illegible] of background in their training and experience than those [illegible] served in the schools of yesterday. We know very little about what requirements should be made for these new types of teachers. Using more systematic methods than those ordinarily used, a special development project has as its objective the collection of fundamental material in this field. It is stated in the terms that a job-analytical methodology will presumably be an important working tool for further educational planning. The project "Job-analyses as a Basis for Training and Refresher-training within the School Sector" is studying the jobs of head teachers and directors of studies in the comprehensive school and those of teachers of methodology as well as guidance counsellors at schools of education. The training objectives and educational content for prospective job-holders will be drawn up after the necessary analysis has been carried out.

Somewhat the same manner of approaching the problem is used in the so-called PIL Project ("Pedagogics in Teacher Training"), in which the aim is to plan and try out more goal-oriented instruction in pedagogics for students in education at the universities and schools of education.

The Goals for Teaching

The general and overall goals of the school and its instruction are the subjects of political decisions, especially in conjunction with the discussion of new laws and curriculum guides. Only indirectly will the results of research and experiment affect these resolutions.

However, it is the task of the school, to a great extent through the innovation work that is done, to analyse the given objectives and to investigate how these can be and are translated into practice.

A project that falls into this category is concerned with reading literature in the comprehensive school. On the basis of the new curriculum guide, which places emphasis on the school's activity within the aesthetic functions being evaluated, and changes in this sector within teacher training, the project takes up objectives as well as methods within the area of literature-reading. Evaluations will be made in various ways.

One may also say that the project "Creativity and Autonomy" takes as its starting point the new curriculum guide for the comprehensive school. In this plan it is stressed that upbringing to create independence, flexibility, awareness of problems and new ways of thinking are significant aims in the development of pupils. The project will endeavour to construct and try out a test that can be administered in the school for the identification and measurement of creativity and autonomy. In addition, the project aims at formulating methods to promote creative and autonomous behaviour.

Methods and Teaching Aids in the School

The major portion of those research projects that are a part of the NBE's innovation efforts belong within this group. To this group also goes the largest share of the funds made available.

Several of these projects are concerned with poorly performing or handicapped pupils and their learning potential - one of the sectors which has also been stressed in political circles in recent years by being given a very high priority. The special education sector has, up to now, been able to offer far fewer adapted teaching aids than ordinary schools.

One project has as its main task the formulation of individualising and self-teaching educational aids for selected, fundamental elements within the subjects of Swedish and mathematics. Another project is trying out two different methods for instruction in reading at the special school for the retarded, in which one is a self-teaching method with the use of technical equipment, and the other is based on the psycho-linguistic principle. Teaching of the partially deaf is the subject for research in the very extensive

SMID Project in Uppsala ("Self-instruction Methods in the Education of the Deaf"), in which they are aiming at developing a material methods system for Swedish at the junior level in special schools for children with defective hearing. According to the plan, the system will cover about 70 per cent of the teaching time in the 1st and 2nd grades.

Several fairly extensive experiments are concerned with methods and instructional aids in foreign languages - German and English. The UME Project (Instruction Methods in English) was one of the first large projects that was started under the direction of Bureau L.4. Here the possibility of being able to differentiate and make the instruction of English more effective was studied, using self-instructing material within the framework of the classroom. An effort is made to activate the pupil in a manner that to the greatest possible extent is in accordance with his abilities, his work tempo, his interests and needs, at the same time respecting the requirements of the curriculum guide and the aims of modern language training.

In sub-projects of UME, studies are being made on what effect theoretical explanations, in addition to purely structural exercises, may possibly have for learning. Diagnostic and prognostic tests are being drawn up in order to ascertain the pupils' knowledge and future possibilities of acquiring knowledge. Fundamental instruction in English for adult students is also taken up as an innovation question.

The "English at the Junior Level" project is investigating the effects of beginning English as early as the 1st grade.

Instruction in German has also been the subject of intense research and experimental activity, mainly through the UMT-Project ("Instruction Methods in German"). which started in 1965. Its main objective has been to investigate in a scientific manner certain of the assumptions behind different methods of teaching German (in the lower secondary school), and on that basis and with the aid of successive trials and revisions, to produce a teaching aids system for teaching German to beginners. As a sub-project a tolerance survey was made to find out what degree of perfection the different types of language performances should reach, in different contexts, after the school's German course has been completed: has, for example, the demand for perfection been exaggerated, and the need for speed underestimated?

In the category of methods and teaching aids in the school there is the large and internationally-known IMU-Project ("Individualised

Mathematics Instruction"), which began at the School of Education in Malmö, at the request of NBE, in the fall of 1963.(See the Malmö case study in this series.) In this case too it was a major task to construct and try out self-teaching material and methods of teaching with it. There was also an investigation into the extent to which the teachers can be relieved from work of a routine nature; whether teaching assistants can take it over so that teachers have more opportunity to make the pupil analyses and check which of them are necessary in conjunction with extensive individualisation.

The pre-school question, which has been given quite high priority in various ways in recent years, is also examined in projects on teaching methods. There is interest, for example, in measuring the effect of pre-school teaching on later school and personality development. The content of the pre-school programme is also of central interest. Can natural science be introduced in the form of simple experiments even before children start regular school, for instance? Different alternatives in the method of transition from pre-school to the comprehensive school are also a part of the pre-school projects, which are being carried out especially at the research institutions of the schools of education in Gothenburg, Linköping, Malmö and Stockholm.

In Appendix 2 a more detailed description of a project will be given, a methods project from the gymnasium, in which emphasis has been placed on history as the chosen subject.

In lists of projects it can also be noted that the reading of literature in the gymnasium has been the subject for research (in Gothenburg). Here different methods have been tried out to teach the pupils to read and experience literature; how can fiction be introduced to pupils and how can pupils be stimulated to read?

Projects are also in progress for several other subject areas in the school, such as religion, the social sciences and physical education.

The Development and Adjustment of the Individual

In most cases the projects in this group have been drawn up as follow-up studies. The material that is collected can, in many cases, also be used as basic material for other research projects. This has been the case, for example, for two extensive projects carried out at the University of Gothenburg: "Individual Statistics" and "Youth in Gothenburg".

In another project the main study is to what degree the pupils' mental and physical development are synchronised, and to what degree irregularities in the development pattern of the individual are reflected in his or her behaviour at home, at school and in other contexts.

The Psychological Institute at the University of Stockholm is responsible for a project ("Adaptation, Behaviour, Performance") which is being carried out in a large Swedish city, Ørebro. The study, which will follow the youngest participating pupils during a ten-year period will, among other things, offer a better basis for making early diagnoses, offer better possibilities for rehabilitation measures, prophylactic measures for the prevention of insufficient adaptation as well as counselling to pupils on choice of studies and occupation.

About 4000 pupils who, in 1965/66, were in the last (9th) grade in the comprehensive school in a Swedish county (Västmanland), are being followed up in one of the most recently started projects in order to analyse their continued paths of education and occupations. In this connection any possible significance of the school classes' varying social structure will be examined.

Evaluation Projects

Some of these projects are carried out within Bureau L.4, and in such cases in close co-operation with the two sections for 1) school research and 2) evaluation. Gradually the behavioural scientific institutions at the schools of education and the universities will also be used for these projects that aim at solving current problems.

Even now there are several research projects within the sector of evaluation which have been assigned to research institutions. In several cases the evaluation questions are taken up as sub-projects of larger units, for example in the material-methods development for foreign languages.

Projects are in progress to try out various methods for the evaluation of oral language ability in foreign languages, for adult instruction, standard achievement tests in English in the comprehensive school, and the evaluation methods where the non-coghitive functions are concerned.

Evaluation of performances at people's high schools are being investigated. There has been dissatisfaction among teachers and pupils because of the lack of comparison among those evaluations that are being made today within the different school units.

Within the vocational school sector there is a project in progress in which qualitative evaluation methods are to be drawn up. For instance, efforts are being made to construct diagnostic tests for automobile mechanics and standardised tests that can be used in nurses' training.

Appendix 2

DEVELOPING TEACHING AIDS

Today, more than was formerly the case, innovation activities within the educational aids sector are regarded as a part of the whole development of the school. In planning the development of teaching aids an effort is made to develop aids that will not only help the teacher to do his teaching. Convinced that educational aids to an increasing degree both can and will influence the pattern of teaching and contribute to a type of teaching that will realise the objectives stated in the curriculum guide, planning and other activities within the development of educational aids must be considered in a larger perspective. The greater demand for education that results in social development and an optimal individual development makes it necessary, for instance, to produce teaching aids that can also help promote these aims.

Planning. Analyses

On this basis the teaching aids section has gradually stressed activities that are concerned with goals analyses and goals descriptions. The goals, expressed in legislation and curriculum guides are, as a rule, very generally formulated and must be described in more detail before they can have any direct significance for the development of educational aids. This means more defining and exemplifying than is usually found in the commentaries within the curriculum guides. Teaching aids which are developed afterwards, on the basis of extensive advance analyses and description of goals will generally offer better guarantees for a direct continuation of curriculum objectives and the aims of the school.

In the planning phase, as we recognise it from the pedagogical-technological model, there is also a prerequisite, or framework analysis. This means a survey of the external conditions for teaching, such as access to rooms and teaching aids, economic and human resources, time, etc. As a rule these factors are charted before the design phase begins, and form the basis for it. But as was stated in a memorandum from the teaching aids section: "These factors should not be decisive for the design activity, which should grow out of what is most efficient from pedagogical points of view".

Pupil analyses are also part of the planning work: studying the pupils' knowledge, their abilities and attitudes at the beginning of their studies, as well as the homogeneity or heterogeneity of the pupils. The section partially initiates this activity by itself, but it also builds a great deal on the research results obtained by other people. In general it can be noted that the teaching aids section, after it was reorganised (this came into effect on 1 January 1970), has been given greater opportunities for contact, influence and utilisation of research and experimental results which are done elsewhere, nationally as well as internationally.

The analyses of goals and prerequisites as well as the drawing up of programme guidance for product development are the most extensive activities within the teaching aids section (L.4:2) today, and supply the content of most of the section's approximately 70 projects. These are, in general, more short-term than the research projects engaged in by L.4:1. More than four-fifths of the annual budget for R & D activities is used within this sector. In this present fiscal year the vocational-oriented courses are being given a very high priority because of the new organisation and the new plans which are to go into effect in the upper secondary school as of 1 July 1971.

The rapid increase in immigration in Sweden has led to new and unexpected needs for teaching aids, and the section has, together with the instruction section (UA 1), started a project to analyse this need and take immediate measures within this acute problem-sector. Other groups analyse the needs in relation to radio instruction, special instruction, adult instruction, vocational training, teacher training and educational buildings.

Prototype Design

It is not the task of the teaching aids section to make educational aids in large quantities - this is left to the producers. The section, and thereby the central administration, is, however, responsible for creating the best possible foundation for production. With this aim in mind it is not enough just to offer the producers analyses. It is also necessary that the teaching aids prototypes should be designed centrally, both to verify their own plans and programmes and to offer more functional guidelines.

The technological working model is part of the activity which this task demands. A materials and sequence selection is made as well as a choice of media and method before the preliminary version is constructed. The trial and revision phases come at the end.

It is apparent that development of the prototypes will gradually assume larger proportions as time goes on. At present there are relatively few projects in progress, and some of these have been assigned to the behavioural scientific institutions at the schools of education. A project that is concerned with teaching aids on a typical shortage sector, in conjunction with immigrant instruction, is being operated in co-operation with the National Labour Market Board.

The trial process is also central in the development of prototypes. In connection with more limited prototype designs under the direction of the central school authorities (NBE) there are no particular problems in trying out the teaching aids in the practical teaching situation. An attempt is made at the same time, however, to evaluate the practical possibilities for the same or similar procedures to be followed by educational aids' producers. A prototype is to be used on a larger scale, too, and an effort is therefore made to arrive at new forms and instruments for trial, so that this process can be rationalised and shortened.

As an experiment it has been suggested that special regional trial-areas should be designated from a central source for the activity in which the producers will find it necessary to engage.

Verification - Evaluation - Reporting

The section tries to make its activity resemble the technological model as closely as possible. According to the technological model the designs of the prototype must not be revised until after the first trials have been made. There must be verification often through planned field studies. Here it must be emphasized, however, that in every individual case the various steps of the activity are to be evaluated.

Due to the fact that in developing prototypes and products such great importance is placed on goals analyses, a good foundation is laid at the same time for later evaluation. Besides the direct evaluation of teaching aids prototypes the section also has projects in progress in co-operation with other bodies. Among these there is co-operation with the special evaluation section (L.4:3) within the institution and with the educational institution at the University of Gothenburg, which is also concerned with the trial and evaluation of teaching aids in a larger framework. By virtue of this co-operation approaches are made to questions concerning the evaluation of the school's activity more generally. A further development of methods for and results of teaching aids' evaluation will also represent a valuable component in this context.

Information is also considered by the teaching aids section to be very important, and there is a constant search for new paths to follow within this field. Work is being done to construct teaching aid lists and on the current problems of classification. Work is also in progress to find efficient data systems for the registration of teaching aids, and with organisational models for the distribution and storage of educational aids.

Contact with Other Sections and Institutions

As pointed out above the teaching aids section has clearly changed its activity in the course of recent years by, among other things, granting priority to software instead of hardware, and by choosing a technological model for the construction of educational aids and prototypes of these. Greater emphasis also appears to have been placed on teaching aids as an integral, significant part of the whole of the educational process in the school. On this basis the construction of teaching aids is considered to be a direct continuation of the curriculum guide activity, and it is expected that the new strategy will lead to development and research on the curriculum guide, which will have a more direct feedback-effect on rolling curriculum reforms.

In this situation it is both reasonable and natural that there should be close co-operation between the teaching aids section and several of the other sections within NBE. The existence of this co-operation is a prerequisite for all the activity within this field.

The teaching aids section gives analyses, results of prototype trials, etc., to the various instruction bureaux which have responsibility for product development. One effect of this is that requirements for teaching aids work in the other sections will be raised. Here it is possible to obtain more detailed information on procedures in production and on how the quality of teaching aids can be improved.

The educational aids publishing companies and producers will also be able to participate either directly with L.4:2 or through th other sections that further develop the basis for production of the new teaching aids for different needs, subject areas, school levels and types of school.

Among the users, the section works primarily with individual communities and their organisation, which are the bodies that now pay for all teaching aids. The section is also in contact with the teachers' professional organisations as well as with radio and television.

L.4:2 has become a pure development section or, as the leader puts it, a tool section. All their activity is in this direction. However, it does not seem possible to convince the other sections equally rapidly as to the content and justification for the function they want to fulfil.

In order to obtain greater influence on the development of teaching aids, in particular in those areas where there is especially great need, and where the profitability for production is assumed to be low, production has been subsidised to a certain extent. There has been discussion on the question of using this means on a larger scale, such as was the case, for instance, in the development of the first large material-methods project, IMU. A necessary condition for this is that greater resources are made available for the purpose by central authorities.

Appendix 3

TEST CONSTRUCTION

Achievement Tests

In the comprehensive schools the following standard achievement tests are used in the following grades:

Grade 3: Swedish
Mathematics

" 6: Swedish
English
Mathematics

" 8: Swedish (until 1972)
English for two different courses, one theoretical and one practical
German, theoretical course (until 1972)
French, theoretical course (until 1972)
Mathematics for two different courses, one theoretical and one practical

" 9: Swedish (from 1973)
German, theoretical course (from 1973)
French, theoretical course (from 1973)

The tests are given during periods determined by the NBE, but it is up to the individual school to choose the day for the tests. Detailed instructions for the testing and the correcting of tests are distributed to the schools with the tests. The same tests are used for a period of about three years. Then a new version is worked out.

The upper secondary school (Gymnasium) uses the following tests:

Grade 11: Swedish for all three-year courses
English for all three-year courses
Mathematics, three different courses
Physics, only for the science and technical courses

Chemistry, only for the science and technical courses
Economics, only for the economics course
Anatomy and physiology, only for the nursing course

Grade 12: Swedish for all courses
German or French, according to the pupil's choice
Mathematics, three different courses
Physics, only for the science and technical course
Accounting, only for the economics course

These central, standardised tests are compulsory in the gymnasium. (According to instructions found in the curriculum guide the principal may consent to replace the central test with a test constructed by a teacher in that special subject. However, this possibility is seldom, if ever used). They are given according to a common plan for all schools, determined by the NBE. The test sessions are spread out from December to May. The tests for the gymnasium are newly constructed each year.

The construction procedure is practically identical for the different tests intended for the comprehensive and the upper secondary schools.

Section L.4:3 is responsible for the tests. The planning and technical work is done by psychologists, psychometricians and clerks attached to the section. For every subject and type of test there is, however, a group of 5-10 experts on the subject matter. Some experts within the NBE's administration, i.e. the instruction departments, school consultants and consultants to the gymnasium, are attached to each of these subject groups. Together with two psychologists from the section the group is responsible for the analysis of objectives for teaching in the relevant subject and for the principal form of the test.

Other groups of experts, also 5-10 for each subject, write the test items according to the decisions of the section and the previous expert groups. Trial forms of the test are constructed in the section and then tested on a sample group of pupils. The data from the trials are analysed by means of a data-computer for item analysis, reliability, etc. The norms for the tests are based on a representative sample of results, submitted by teachers after their pupils have taken the tests. In this context it may be mentioned that experiments are being done with procedures for the optical reading of answer-sheets from the tests in order to help the teachers in correcting the tests and at the same time have all the data about the results.

The section is also responsible for the final edition of the test, but the production work itself, including distribution, is carried out on a contract basis by a printing company.

Diagnostic Tests

Tests for diagnostic purposes are developed mostly as parts of textbooks and teachers' manuals in close conjunction with teaching aids.

In addition to these diagnostic tests, which are within the framework of the production of school books and thus developed privately, the National Board also produces some diagnostic tests. This work has been in progress for only a few years, but there are plans to continue and broaden it, both in terms of subject and school levels.

These tests are constructed in nearly the same way as the achievement tests described above. The NBE's diagnostic tests are not related to specific textbooks but to the general curricular guidelines, valid for the whole country.

The following diagnostic tests have been developed so far:

Grade 4:	Swedish English
" 7:	Swedish (reading comprehension and study techniques)
" 10:	Mathematics, for the three gymnasium courses Mechanics, vocational stream for automobile mechanics.

As part of everyday teaching there is an obvious need for more diagnostic material. It has also been stressed that development of diagnostic tests must be considered in conjunction with work on remedial learning programmes. The diagnosis in itself only tells where and how pupils fail or succeed, but usually does not tell what should be done to repair deficiencies. Programmes like this are now in the process of being drawn up.

Part Six

THE STATE INSTITUTE FOR EDUCATIONAL RESEARCH AND PLANNING, MUNICH, GERMANY

by

Prof. Dr. F.E. Weinert, and Dr. Heribert Simons

Spring 1971

SUMMARY

THE STATE INSTITUTE FOR EDUCATIONAL RESEARCH AND PLANNING, MUNICH

A growing concern in West Germany over the reluctance of the education system to keep pace with changes in society and the needs of a modern industrial state culminated in a report on the development of the system between 1945 and 1965, which was headed provocatively 'Two Decades of Non-reform in West German Education'. The West German Länder or states jealously guarded their more or less complete autonomy in educational matters, but at the same time they could not ignore the debate on education policy which was growing on all sides.

It was against this background that Bavaria - one of the largest predominantly rural states not noted for a progressive attitude to education policy - set up the Bavarian State Institute for Educational Research and Planning, 'to examine school and education policy problems at the request of the State Ministry of Education and Culture and in particular to prepare studies and plans in co-operation with persons who have active practical experience in all types of school'. It was founded in August 1966, and started work in September 1967, housed in the buildings of the Bavarian State Library in Munich. Its director, whose personality has had much to do with the development of the Institute to date (as will be seen in the case study), has been from the beginning Professor Dr. Alfons Schorb, who is also Professor of General Didactics at the Munich Teacher Training College.

From the outset, great care was taken to encourage close co-operation with the Ministry, political forces, teachers in the schools and other research establishments. Probably for this reason, and unlike some other institutions studied in this series, there appears to have been no opposition to the creation of the Institute, though during its development there has been some conflict over its aims and objectives. It is funded by the Ministry, and its budget has more than trebled in the last three years. Its activities during the last three years have been to build up a documentation centre, begin work on and, in some cases, complete research projects, play an active part in the committee work of the Ministry and publish a series of scientific papers.

Gradually, it has become clear that the general aim of education policy, as seen by the Institute, is reform aimed at securing more intensive and more democratic education. The staff do not wish to theorise and experiment in a vacuum, but try instead to pick projects and approach their work from a more practical angle. The state's predominantly rural character means that educational reform has to be geared to local conditions and variations between different areas. The tendency to put the emphasis on area-related rather than pupil or method-oriented research has brought widespread criticism from teachers, heads and school inspectors: they expect not only the initiation of innovations from the Institute but also practical help for those who have to implement them in the schools.

The Institute has found that co-operation and considerable informal contact with the Ministry is the best way to progress: but this does not mean that it is unable to criticise the Ministry when the findings of its research imply some criticism. It believes that information must be freely available to the public, on the grounds that a forward-looking policy has nothing to fear from a well-informed public. The Institute also realises that unless it can gain the respect and understanding of politicians and civil servants, its work will have no practical influence. For this reason it does all it can to avoid any hint of scientific arrogance or 'knowing better'.

One of the less satisfactory products of the degree of co-operation between the Institute and the Ministry is that the former finds itself undertaking ad hoc projects for the Ministry which do not fit in with its specific research objectives. Nevertheless, the staff believe that the acceptance of this 'fire brigade' role is of major strategic importance. But even the Ministry has suggested that the amount of this work has diverted the Institute in its first years from its real tasks.

Because of its small staff, the Institute's organisation remains informal, but its growing size is beginning to cause problems in the fields of internal communication and participation, which are likely to lead to a more formal structure.

The projects undertaken by the Institute are described in the case study, some of them in detail. Amongst other things, this study shows the slowness with which the West German and particularly Bavarian schools have reacted to the idea of comprehensive organisation, and the degree of compromise that the conservative nature of the administration has forced on policy decisions.

The Institute's success to date lies in the way in which it has reduced the tensions inherent in the relationships between educational research and policy and between educational research and practice in the schools. It has broken down barriers and improved the dialogue between the various partners in the system. It has already influenced policy decisions by scientific findings. And probably most important, in its development the Institute has reduced the traditional prejudices that researchers, politicians, administrators and teachers have about each other.

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ACKNOWLEDGEMENTS

We are deeply indebted to the State Ministry of Education and Culture, the Director of the State Institute for Educational Research and Planning, Professor Dr. A.O. Schorb, and the Institute's staff for the unlimited support they gave to our work and for making our task a great deal easier through active and critical analysis of their own situation and institutions.

METHOD OF WORKING

The authors of this case study were able to observe the work of the Bavarian State Institute for Educational Research and Planning closely for about six weeks in the spring of 1971. The structure of their study was as follows:

10 semi-standard interviews lasting for several hours with the Institute's Director and each member of the scientific staff;

an evaluation questionnaire completed by the scientific staff of the Institute, consisting of 30 items, some of them open and others designed on the multiple choice principle;

observation of several discussions of reports and projects - a summary was made of these discussions;

examination of the Institute's records;

perusal of the scientific works published by the Institute and by individual members of the staff;

interviews with representatives of the Ministry of Education and Culture, the Ministry of the Environment and the political parties represented in the Bavarian State Parliament;

interviews with persons indirectly affected by the Institute's work, i.e. representatives of the teachers' unions, trade unions, associations, academies, etc.;

interviews with teachers directly affected by the Institute's school experiments.

The authors hoped that this structure would allow cross-validation - even by a 'multi-trade-multi-method-multi-informant' procedure which necessarily reduces validity and reliability - both of individual items of information and of all the information relevant to a specific problem.

Chapter I

THE INSTITUTE'S BACKGROUND

Institutions are permanent establishments set up to meet specific needs of society. The terms of reference, aims, strategies and role concept of an institution can therefore only be understood in its own social context. This is particularly true of the State Institute for Educational Research and Planning which began work only four years ago. Its activity is necessarily influenced by a wide range of social, political, administrative and scientific factors. However, certain national and international developments in educational planning and some special features of Bavarian education policy in the mid-1960s appear particularly important.

1.1. Development of Educational Research and Planning in the FRG

Robinsohn and Kuhlmann chose the significant title of 'Two decades of non-reform in West German education' 1) for their report on changes in the German education system between 1945 and 1965.

The tripartite school system was built up again after the second world war without any basic reform of the curriculum, organisation or methods. Education policy and the school administrations concentrated on remedying external shortcomings such as inadequate school buildings, overcrowded classes, teaching by shifts, shortage of teachers, etc. Public dicsussion did not reflect any awareness of the need for structural reform.

The federal structure of the FRG and the almost unlimited autonomy of the individual states in educational matters were further inhibiting factors in the immediate post-war years. The Deutscher Ausschuss für das Erziehungs- und Bildungswesen (German Education Committee) which was set up jointly by the federal authorities and the states, functioned between 1953 and 1965, but its practical effectiveness was limited. As one commentator put it: 'At this time it proved impossible to bring the scientific experts and politicians together.' 2)

The education policy scene in the Federal Republic did, however, change altogether a little later after the - perhaps overdramatic -

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diagnosis of an 'educational crisis' in Germany and the threat of a 'catastrophe in education.' 3) An awareness suddenly developed of the systematic connection between expenditure on education and long-term economic growth. The importance of schools as an instrument of selection and their role in determining the social prospects of children were increasingly recognised. The fact that the inequality of opportunity for children from different social backgrounds tended to be reinforced by the school system took on social policy connotations. The parliaments, ministries of education and school administrations were practically helpless in face of the spontaneous campaigns, demonstrations and criticism by a public which had developed an interest in education policy. They had to react to a succession of acute emergencies, without any long-term, scientific plans on which to base their action. The accompanying climate of uncertainty increased their readiness to base education policy decisions on scientific research and develop the necessary planning machinery in an appropriate institutional context. The Educational Research Institute of the Max Planck Society was founded. The Deutscher Bildungsrat (German Education Council) began work on 17 March 1966 and a number of ministries of education set up their own planning departments.

Theoreticians in the FRG were ill-equipped to solve the problems which arose in the educational sphere. Relevant interdisciplinary research was thin on the ground; economic interest in education had been slow to develop. The theoretical work which was being done in educational science, psychology and sociology - all highly relevant spheres of study - had little practical value. The definition of the underlying problem given by Bennis, Benne and Chin was (and still is) particularly applicable to the Federal Republic:

> '... We seem, quite often, to become lost at the crossroads of a false dichotomy; the purity and virginity of theory on the one hand and the anti-intellectualism of some knowledge-for-what adherents on the other. This division over-simplifies the issue. The issue is far more complicated; it concerns the transformations and developmental conceptualising that have to be undertaken before theory can become practical.' 4)

Because of the late start made on the development of educational planning in the Federal Republic, it was possible to fall back to some extent on foreign experience - fostered in no small measure by UNESCO and the OECD; but the limitations on the practical use of necessarily general models of educational planning soon became apparent. For these plans to be anything more than attractively formulated programmes or provisions which must by their very nature remain confined to a few privileged experimental schools, national and regional requirements had to be taken into account. The almost exclusive use of econometric forecasting models to estimate the cost of meeting the demand for education and evaluate the usefulness of specific projects also seemed unsatisfactory. The multi-disciplinary approach taking economic, sociological, psychological and pedagogic variables into account seemed more appropriate. Finally, the impossibility of drawing up a single plan for long-term forward programming of the education system was realised. If change is in fact the only constant in our society, educational planning must of necessity be a permanent activity, and the school system optimised through a continuous process of reform.

Now that the initial uneasy relationship between politics and science has given way to a willingness (which raises a new set of problems) to base education policy decisions solely on scientific research, the institutionalisation of educational research and planning at regional and supra-regional level has moved ahead strongly in recent years. The scientific institutes are expected to 'make a detailed analysis of education as a system, determine the underlying quantitative and qualitative parameters of the process of education and prepare short, medium and long-term forecasts of future development trends in the context of social and economic policy objectives with a view to:

a) providing full background information for education policy decisions;

b) ensuring efficient and rational development of the education system once decisions have been taken and

c) effectively and continuously.controlling the preparation and implementation of measures by the democratic institutions of society.' 5)

The first tentative attempts to provide this general scientific support already highlighted the problems and the need to clarify the relationship between educational practice and research, between educational research and planning and between educational planning and policy. The creation of the State Institute for Educational Research and Planning must itself be seen as one specific solution to this extremely complex problem.

1.2. Education Policy in Bavaria

While it is comparable with the situation in other States of the FRG, education policy in Bavaria in the mid-1960s has a number of special aspects which explain to some extent why the State Institute was founded and have also helped to determine its role.

Bavaria is typical of the West German states, covering an extended area - 70,548 square miles - with a population of 10.28 million (compare : Belgium - 30,500 square kilometres, 8.9 million inhabitants; Sweden - 450,000 square kilometres, 7.34 million inhabitants). The transition from a primarily agricultural to a more industrialised social structure has been completed in Bavaria since 1900. At the turn of the century more than 70 per cent of the active population were employed in agriculture; recently the figure was still some 17.5 per cent but reliable forecasts suggest it will drop to about 7.5 per cent during the next 30 years. A.O. Schorb, the Director of the State Institute for Educational Research and Planning, considers this change in the economic and social structure highly relevant to the Bavarian education system: 'In the early years of this century, 70 per cent of the Bavarian population were active in a single clearly defined profession for which little educational training was necessary; only a fraction of the population had any need to prepare themselves for a range of non-agricultural professions in the secondary and tertiary sectors; today the whole population must do so. This process might also be defined as follows: professional and social mobility which used to affect only one small group has now become a reality for the whole population and determines the general need for education.' 6)

Social changes on this scale have resulted in major regional differences in Bavaria. These differences are reflected not only in the economic situation but also in the schools. Statistical averages for the percentage of pupils going on to secondary schools, pass rates in the Abitur examination (which qualifies pupils for entry to higher education) and the number of pupils completing their courses of study are of little significance when we compare the figures for large towns and predominantly rural areas. For example, the statistic that 22 per cent of all pupils transferred to general secondary (grammar) schools and 27 per cent to lower secondary schools conceals the fact that in the large towns (kreisfreie Städte) 35 per cent of pupils in a given year move up to general secondary schools and 38 per cent to lower secondary schools, while the corresponding figures for districts extending into rural areas are 17 and 24 per cent. In other words the transfer rate in the urban areas is almost twice as high as in the rural districts.[7)] There are of course also striking disparities within urban and rural areas. For example, the number of pupils transferring to lower secondary schools fluctuates in the 143 Bavarian districts, between 4.1 per cent (Ober-Viechtach district) and 42.3 per cent (Miltenberg/Main district). The distribution range is as follows:

Transfer rates below 10 per cent	7 districts
between 10 and 15 per cent	55 districts
between 15 and 20 per cent	50 districts
above 20 per cent	31 districts

In comparison, the transfer rates in the large towns are significantly higher:

Transfer rates below 25 per cent	2 towns
between 25 and 30 per cent	12 towns
between 30 and 35 per cent	14 towns
above 35 per cent	20 towns

In other words the transfer rates in the least-favoured towns correspond to those in the most-favoured rural districts. Although, as is shown in illustrations 1 and 2 (see pages 466 and 467), the transfer rates to general secondary schools have had an overall increase in rural areas between 1963 and 1969[8)], the disparity between urban and rural areas has not been reduced as much as it may appear, since the transfer rates in the towns have increased as well.

Notwithstanding the fact that the "educational gap" has been partially closed in recent years 'the elimination of inequalities of opportunity resulting from extreme social-geographic conditions remains the principal objective of educational policy and planning for the next decades.'[9)] The volume of planning work which remains to be done is apparent from the statistics showing the number of schools, classes and pupils in 1969:

Type of school	No. of schools	Pupils	Classes	Teachers
Primary schools	3,359	1,184,285	31,486	37,369
Special schools	275	34,691	1,828	1,893
Lower secondary schools	277	119,318	3,588	5,958
General secondary schools	337	205,699	7,003	11,967

Diagram 1

TRANSFER RATES TO GENERAL SECONDARY SCHOOLS IN 1963

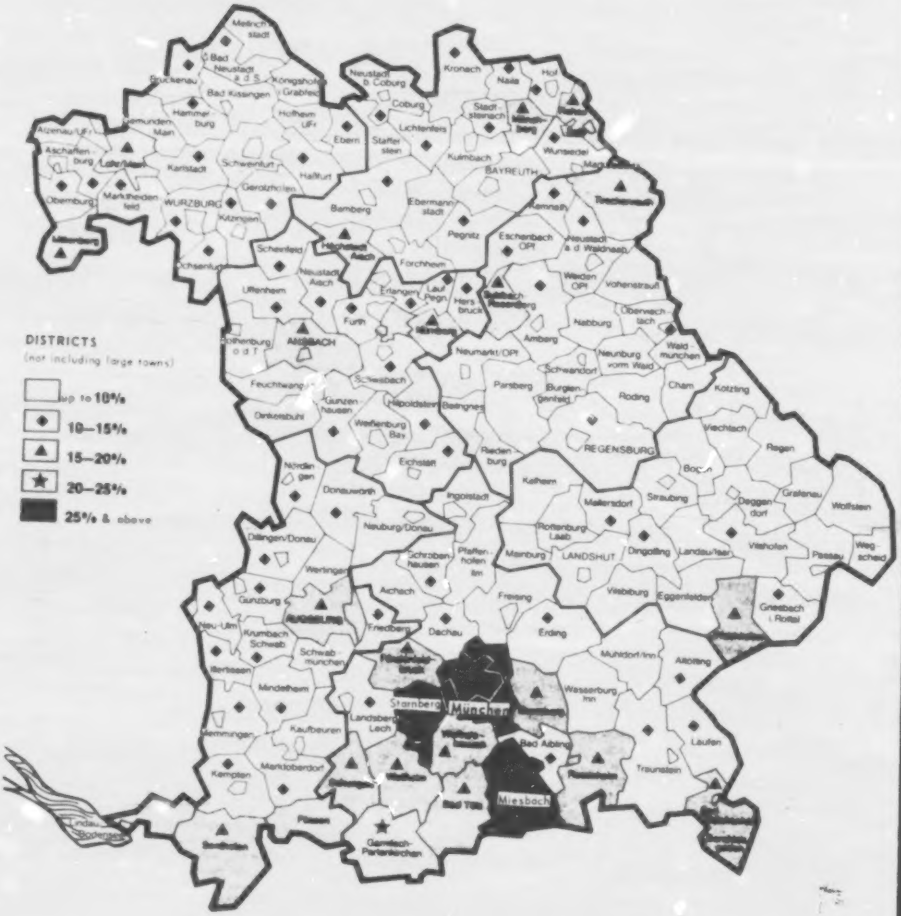
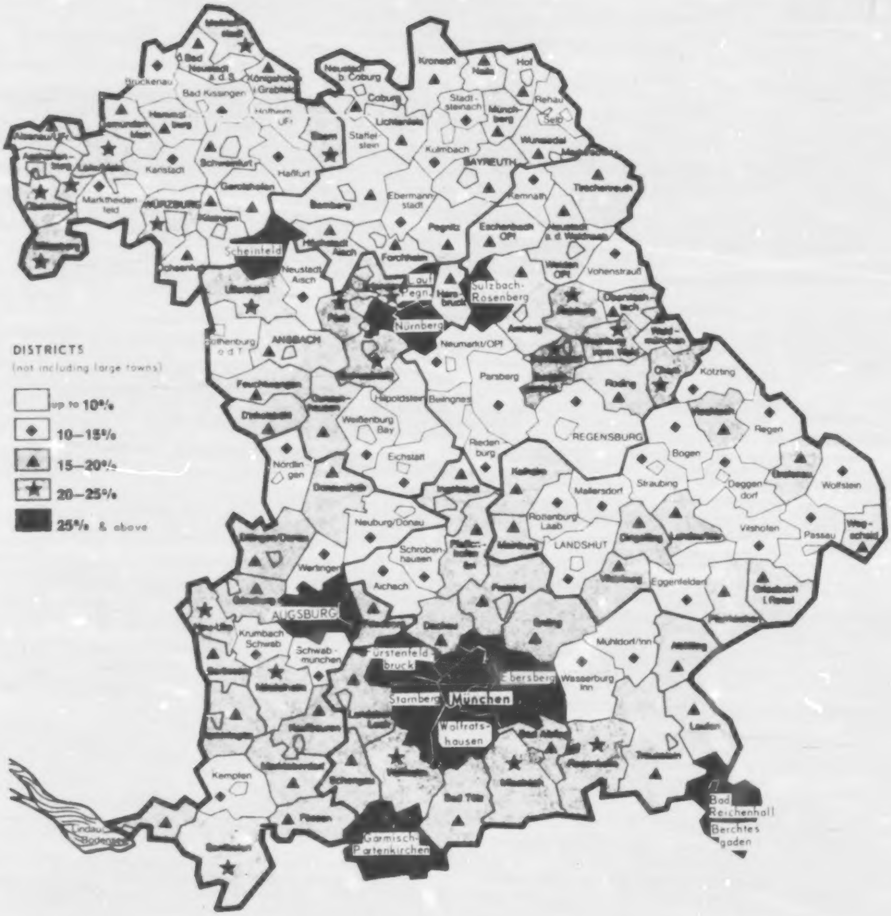

DISTRICTS
(not including large towns)
up to 10%
10–15%
15–20%
20–25%
25% & above
Mellrichstadt
Bad Neustadt a.d.S.
Bruckenau
Königshofen i. Grabfeld
Bad Kissingen
Hammelburg
Gemünden Main
Alzenau/UFr
Aschaffenburg
Obernburg
Marktheidenfeld
Karlstadt
WURZBURG
Schweinfurt
Gerolzhofen
Kitzingen
Hofheim UFr
Haßfurt
Ebern
Neustadt b. Coburg
Coburg
Staffelstein
Lichtenfels
Kronach
Naila
Hof
Stadtsteinach
Kulmbach
BAYREUTH
Wunsiedel
Bamberg
Ebermannstadt
Pegnitz
Kemnath
Eschenbach OPf
Neustadt a.d. Waldnaab
Scheinfeld
Ochsenfurt
Uffenheim
Neustadt Aisch
Erlangen
Lauf Pegn.
Hersbruck
Forchheim
Weiden OPf
Vohenstrauß
Oberviechtach
Nabburg
Amberg
Furth
Rothenburg o.d.T.
ANSBACH
Schwabach
Neumarkt/OPf
Neunburg vorm Wald
Waldmünchen
Schwandorf
Feuchtwangen
Gunzenhausen
Hilpoltstein
Beilngries
Parsberg
Burglengenfeld
Roding
Cham
Kötzting
Dinkelsbühl
Weißenburg Bay
Eichstätt
Riedenburg
REGENSBURG
Viechtach
Regen
Nördlingen
Donauwörth
Ingolstadt
Kelheim
Mallersdorf
Straubing
Bogen
Deggendorf
Grafenau
Wolfstein
Neuburg/Donau
Dillingen/Donau
Rottenburg Laab
Dingolfing
Landau/Isar
Vilshofen
Passau
Wegscheid
Schrobenhausen
Pfaffenhofen Ilm
Mainburg
LANDSHUT
Wertingen
Aichach
Freising
Vilsbiburg
Eggenfelden
Griesbach i. Rottal
Gunzburg
AUGSBURG
Friedberg
Dachau
Erding
Neu-Ulm
Krumbach Schwab
Schwabmünchen
Mühldorf/Inn
Altötting
Illertissen
Mindelheim
Starnberg
München
Wasserburg Inn
Landsberg Lech
Memmingen
Kaufbeuren
Bad Aibling
Laufen
Kempten
Marktoberdorf
Traunstein
Miesbach
Bad Tölz
Lindau Bodensee
Füssen
Garmisch-Partenkirchen

Diagram 2

TRANSFER RATES TO GENERAL SECONDARY SCHOOLS IN 1969


DISTRICTS
(not including large towns)
up to 10%
◆ 10–15%
▲ 15–20%
★ 20–25%
■ 25% & above
Bad Neustadt a.d.S.
Königshofen i.Grabfeld
Brückenau
Bad Kissingen
Hofheim UFr
Karlstadt
Haßfurt
Schweinfurt
Marktheidenfeld
Gerolzhofen
WÜRZBURG
Kitzingen
Scheinfeld
Neustadt Aisch
Neustadt b. Coburg
Coburg
Kronach
Naila
Hof
Rehau
Selb
Stadtsteinach
Münchberg
Lichtenfels
Staffelstein
Kulmbach
Wunsiedel
BAYREUTH
Bamberg
Ebermannstadt
Kemnath
Tirschenreuth
Pegnitz
Eschenbach OPf
Neustadt a.d. Waldnaab
Höchstadt Aisch
Forchheim
Vohenstrauß
Weiden OPf
Lauf Pegn.
Hersbruck
Sulzbach-Rosenberg
Nürnberg
Amberg
Rothenburg o.d.T.
ANSBACH
Neumarkt/OPf
Feuchtwangen
Hilpoltstein
Beilngries
Parsberg
Weißenburg Bay
Eichstätt
Riedenburg
Nördlingen
Kötzting
Roding
Cham
REGENSBURG
Regen
Bogen
Straubing
Deggendorf
Wolfstein
Mallersdorf
Rottenburg Laab
LANDSHUT
Vilshofen
Passau
Wegscheid
Neuburg/Donau
Schrobenhausen
Wertingen
Aichach
Eggenfelden
Griesbach i.Rottal
AUGSBURG
Krumbach Schwab
Schwabmünchen
Fürstenfeldbruck
Ebersberg
Mühldorf/Inn
Wasserburg Inn
Starnberg
München
Wolfratshausen
Laufen
Kempten
Bad Tölz
Garmisch-Partenkirchen
Bad Reichenhall
Berchtesgaden
Lindau Bodensee

In 1970 the budget of the Bavarian State Ministry of Education and Culture included a figure of 1,506 million DM for education. This expenditure was 43.2 per cent higher than in 1955.10)

The foundation of the State Institute for Educational Research and Planning is probably not explained entirely by the special situation of the educational system in Bavaria; it must also be seen against the background of tension between centralistic and federalistic trends in German education policy. All attempts to increase the authority of the Federal Government in the educational sphere have been keenly resisted by Bavaria. In 1966, however, the German Education Council (Deutscher Bildungsrat) was formed with a view to standardising and reforming the German school system. From then on there was a much greater need for scientific evidence in support of regional ideas; political backing was no longer enough. Moreover, the unsuccessful plan to maintain 'miniature' rural schools with one or two classes was not corrected for a long time; the delay in introducing the 9th school year and a reticent attitude on integrated comprehensive school experiments resulted in Bavaria's frequently being referred to as the most backward state in the general debate on education policy in the FRG. The need to develop its own planning machinery arose both from educational economic criteria and from the requirements of education policy.

1.3. Foundation and Development of the State Institute for Educational Research and Planning

Under the influence of the education policy developments which we have outlined and against the background of more intensive educational planning activities at Federal level and in various states, the idea of creating a Bavarian research institute gradually took shape in the mid-1960s. The Minister of Education and Culture, Dr. Ludwig Huber, made the following observations in his budget speech of 23 March 1966: '... Finally, the federative structure of our educational and cultural life calls for constant discussions and an exchange of experience and proposals between all the partners. The newly founded German Education Council also needs this partnership, without which its recommendations will go unheeded. The Council's work must be practical; its recommendations must be designed in such a way that they can be implemented in the different school systems. But the authorities which have to control the vast educational machinery administered today by the state cannot cope on their own. They need a special body to observe, plan, test and propose, to 'cultivate links with theory and school practice as well as with social and political forces, to keep in touch with all the complex facets of the educational policy debate and make our state's contribution to the new educational planning at Federal level.

' All this must be the task of a separate Institute for educational renewal and this year's budget makes provision for building up a small planning staff. The Institute will consist of a few full-time staff members who are experts in various scientific disciplines such as sociology, pedagogics, etc. They will have a planning function, ensure continuity of the work and summarise the results. But specific problems will be studied by working groups, temporarily attached to the Institute. These groups will work in the Institute until their study is completed and may call in experts to examine particular problems; they will be disbanded on completion of their task and return to their schools. In this way I hope to establish a close link between expert knowledge and professional experience, and prevent bureaucratic developments while still maintaining the necessary relationship between individual work and general planning. I hope that this plan will be seen as a serious attempt by the state Government to solve the great problems of educational planning in Bavaria.' 11)

These observations coincided broadly with the opinion set out in a paper on the subject by the Director of the Institute after his appointment; they therefore provide a detailed model for the foundation, role concept and working methods of the Institute.

The State Institute for Educational Research and Planning was set up on 12 August 1966, and given the task of 'examining school and education policy problems at the request of the State Ministry of Education and Culture and in particular preparing studies and plans in co-operation with persons who have active practical experience in all types of school.' 11) The Institute began work in September 1967; it was initially accommodated in the premises of the Bavarian State Library in Munich. Dr. Alfons O. Schorb, who is also professor of general didactics at the Teacher Training College in Munich was appointed director.

The Institute has often been described as a 'scientifically independent establishment which is directly attached to the Ministry of Education and Culture.' Some of its study projects are chosen by the Institute itself and others designated by the Ministry. Both partners agree that the scientific independence of its working methods and results must be fully guaranteed.

The Institute's aim is to 'conduct scientific studies of external and internal aspects of the education system in the context of development processes in the economy and society. For the systematic, long term preparation of education policy measures, the government and administration require the support of independent scientific institutions. The task of the State Institute for Educational Research and Planning is to conduct comprehensive and carefully planned studies as a preparation for measures enabling the educational establishments to provide enough well-trained young people for recruitment to the various professions and ensuring the greatest possible measure of democracy in the education system, by offering each individual citizen the personal education and professional training best suited to his aptitude and aspirations.' 12)

In order to achieve these aims, provision was made from the outset for close co-operation with the Ministry of Education and Culture, the political forces in the state, teachers in the schools and other research establishments.

The Institute was set up by the Ministry of Education and Culture as part of a general plan for educational planning in Bavaria, which provides for the establishment of a Planning Department in the Ministry and the creation of a number of Institutes and project groups (see Chapter 4: Organisation). These activities of the Ministry have always enjoyed the consistent support of the Bavarian State Government, the political parties in the state, the teachers associations, trade unions, professional groups and information media. We were unable to discover any opposition to the creation of the Institute.

In the past four years the State Institute has been developed to about one third of its proposed size. It now has 10 scientific experts, 3 administrative employees and one librarian; 6 scientific experts in an attached project group are working on a background study of the comprehensive school experiments. Future office space requirements are estimated at a minimum of 900 square metres. The Institute's budget (including staff costs) has grown as follows:

1968		DM 206,000
+ special funds for research projects		DM 35,000
1969		DM 550,000
	+	DM 50,000
1970		DM 700,000
	+	DM 69,000

All these funds are allocated from the budget of the State Ministry of Education and Culture.

In the first few years since its foundation, the Institute has built up a documentation centre (which is still fairly small), begun work on and, in some cases, completed a large number of research projects (see Chapter 5: Activities), played an active part in the committee work of the Ministry of Education and Culture and published a series of scientific documents (see Appendix).

NOTES

1) ROBINSOHN, S.B. and KUHLMANN, J.C. Two decades of non-reform in West-German education. Comparative Education Review 11, 1967, No.3.

2) BECKER, Hellmut, *Bildungsforschung und Bildungsplanung*, *edition Suhrkamp*, Frankfurt, 1971, p.41.

3) PICHT, G., *Die deutsche Bildungskatastrophe*. Olten/Freiburg, 1964.

4) BENNIS, W.G., BENNE, K.D., CHIN, R. (ed.). The Planning of Change. 2.A. London/New York/Sidney/Toronto, 1969.

5) BAHR, K. *Zusammenfassende Darstellung verschiedener Ansätze zur Bildungsplanung*. In: *Institut für Bildungsforschung in der Max Planck-Gesellschaft*: *Internationales Seminar über Bildungsplanung*. *Referate und Diskussionen*. Berlin, 1967, p.30.

6) SCHORB, A.O. *Bildungsplanung für die Zukunft*. Unpublished manuscript. *Staatsinstitut für Bildungsforschung und -planung*. München, 1971, p.6.

7) SCHORB, A.O. *Raum und Bildungsbewegung*. In: *Raumforschung und Raumordnung* 28, 1970, 198-202.

SCHORB, A.O. and SCHMIDBAUER, M., *Bildungsbewegung und Raumstruktur*. Stuttgart, Klett 1969.

8) *Schulreport. Tatsachen und Meinungen zur aktuellen Bildungspolitik in Bayern*, 1971, Heft 1, p.10-11, (Published by the Bavarian Ministry of Education and Culture).

9) SCHORB, A.O. Bildungsplanung für die Zukunft. Unpublished manuscript. Staatsinstitut für Bildungsforschung und -planung, München, 1971, p.12.

10) Cf. Bayerisches Staatsministerium für Unterricht und Kultus: Jedem eine Chance. München, 1970.

11) Notice of 12 August 1966 by the Bavarian State Ministry of Education and Culture on the creation of an Institute for General Secondary School Pedagogics and an Institute for Educational Research and Planning, Bayerischer Staatsanzeiger, No.34, 22.8.1966.

12) Staatsinstitut für Bildungsforschung und -planung: Informationen zur Aufgabe, Arbeitsweise und bildungspolitischer Standort des Instituts. München, 1967 (unpublished manuscript).

Chapter II

THE INSTITUTE'S AIMS

2.1. Educational Research as an Aid to Regional Educational Planning

The Bavarian State Parliament and the Ministry of Education and Culture set up the Institute to provide a scientific basis for education policy decisions; this general role of the Institute, to which all its activities are geared, is accepted by all its staff. The fact that it would be ill-advised and an encroachment on the responsibility of politicians to suppose that political decisions can be founded entirely on scientific data in the present state of knowledge is, however, recognised. 1) The Institute realises too that - quite apart from this reservation of principle - its panel of staff is too small to provide scientific background information on more than a few educational matters on which policy decisions must be taken.

The Institute has postulated renewal of the educational system to secure more intensive and democratic education as the general aim of education policy, and hence of its own activities. It loses no opportunity to stress that medium term objectives must be set with this end in view; long term educational forecasts are untenable because of the variety and complexity of the factors involved which in any case do not all develop at the same rate. The Institute therefore has the task of organising its activities and influencing education policy in such a way that the present generation of school children can still benefit from renewal in education. The personal right of each individual to education must be guaranteed through innovative measures designed to abolish educational barriers and ensure equal opportunity for all population groups as a short to medium term project (periods of up to five years have generally been considered reasonable).

The Institute's own concept of its role in the process of educational reform is therefore reflected in the following question: what factors must be studied and proposals then put forward to enable educational establishments to be planned in the near future to offer a full range of facilities to all population groups? The design of ideal models which may be scientifically well-founded but require long trials under practical conditions has been excluded from the list of tasks and objectives of the Institute. Its staff have no desire to theorise and experiment in a vacuum but try instead to approach their studies and planning functions from a more practical angle, intentionally departing e.g. from the methods used by the Educational Research Institute of the Max-Planck Society in Berlin. The Institute prefers to remain in close contact with real conditions so that the results of its work can be put into immediate practice (in orders, decrees and decisions of the Ministry of Education and Culture). The extent to which the conclusions of the Institute's studies are used by decision-making bodies responsible for educational policy is taken as a criterion for practicality and, since practical relevance is a prerequisite for all the Institute's activities, also as a criterion of its effectiveness.

The fact that Bavaria is one of the states covering a considerably large area has an important bearing on the Institute's efforts to establish a more intensive and democratic system of education. It has coloured the way in which the Institute's staff view their role and determined the orientation of their work; it is also reflected in the formulation of the Institute's principal aim: i.e. to pursue regional, area-related educational research and planning. 'Even though the ultimate objectives may be the same and the desire for renewal equally strong, educational planning must turn to models of implementation in the predominantly rural states different from those in the primarily urban ones. The distance factor is negligible in the city states, but it is the decisive criterion for innovation in those states which cover a large area.'2)

The Institute's staff therefore believe that a democratic education policy geared to the needs of the population must be area-related. In practical terms the creation of equality of opportunity - as one ultimate aim of all educational reform - therefore means that disparities between conditions of education in different regions must be pinpointed and described and proposals advanced to remedy them. 'Equality of opportunity, democratic conditions and satisfactory results in education cannot be achieved by a general statement of intent but only by a willingness to take the necessary measures in the light of real conditions and accept the tactical concept which is best suited to the local situation.'3) This awareness of the need for area-related educational research and planning is inevitably accompanied by strong opposition to all innovations and educational policy measures which fail to take regional conditions into account; their 'progressiveness' and popular appeal are looked upon as nothing more than a show of modernism.

Because of the emphasis on area factors as a major influence on the educational system, the Institute has followed certain specific priorities in its practical work. On the assumption that regional differences in education or school attendance are not explained satisfactorily by differences in the aptitude and performance motivation of the population groups concerned, research must concentrate on specific regional characteristics rather than on the persons directly affected. The number and type of schools, transport density, time required to travel to school, residential density, economic resources and income from taxation and similar local factors provide the basic data needed to work out proposals for renewal of the educational system. The problem of eliminating regional differences between levels of attendance at educational establishments by arranging transport to bring pupils to the schools or alternatively by bringing education to the pupils, is therefore of much greater interest to the Institute than, for example, determining whether regional disparities in education can be eliminated by systematic, institutionalised aptitude and ability training for children of pre-school age.

The educational research conducted by the Institute has been designed specifically to foster area-related educational planning which is not concerned with such things as a detailed definition of teaching methods.

On the contrary, the aim is to make a systematic study of specific factors in the educational system 'such as supply of and demand for persons holding various educational qualifications, investment in teaching aids, buildings, equipment, employment of staff, expenditure on overheads, etc.' which can all be quantified. 4)

In the opinion of the Institute's director, the main function of educational planning in Bavaria and therefore the principal aim of the Institute itself, is to determine the 'silent demand' for education and initiate measures to meet it. The 'silent demand' is, however, thought to reside primarily in the low level of participation in the educational system by the rural population and persons living in sparsely populated areas. To solve the resulting education policy problems, the Institute hopes to supply in good time the scientific data necessary to enable officials responsible for policy and administration to take expert decisions on renewal of the educational system. The Institute must therefore engage in its activity before education policy decisions are taken, not in order to prejudice these decisions but to objectify them by providing factual information, policy arguments and properly founded alternative proposals (e.g. by defining criteria for siting schools, preparing a feasible model for the new school structure in Bavaria after full development of the upper primary into "secondary modern schools", drawing attention to regional differences in the number of pupils transferring from primary to secondary schools and surveying the organisation and range of adult education in Bavaria.)

2.2. Assessment of the Aims pursued by the Institute for Educational Research and Planning

2.2.1. Order of priority in educational research - the Institute's aims

The Institute's main aim of pursuing area-related educational research to bring about a more democratic educational system and its decision not to concentrate on the educational requirements of specific individuals or groups fits in with a general trend in educational research.

The Institute's staff all agree that regional, area-related educational research and planning must take priority among the Institute's objectives. Some staff members are, however, unhappy with the fact that problems of individual and differential psychology are not considered in the context of this general aim, and that the Institute does not control or evaluate processes within the schools themselves (e.g. through curriculum design and evaluation). It has been suggested that this places excessive limitations on the tasks with which an educational research Institute should legitimately deal. But attention has also been drawn to the fact that the Institute's staff is inadequate to study these problems in depth.

2.2.2. Outside assessments of the Institute's aims

The emphasis which the Institute has chosen, for educational policy reasons, to place on area-related rather than pupil or process-oriented educational research has elicited massive criticism from teachers, headmasters and school inspectors on the grounds that it is 'remote from reality' and stems from 'theorising in the committee room.' The critics believe that the direct task of an

'Institute for Educational Research and Planning' is not only to initiate innovations in the school system and 'systematically prepare on a scientific basis' the relevant decisions and decrees laying down school policy but also to provide practical assistance to the teachers who are generally taken unawares by new developments or ministerial orders, and support them in their efforts to achieve the objectives which are implicit or specifically stated in the changes concerned. 5)

Similar major differences between the actual aims of the Institute and outside expectations or wishes did not come to light in enquiries directed to other persons who co-operate in one way or another with the Institute or are affected by its activities. Representatives of the Bavarian teachers' associations welcome the fact that a scientific institute has set itself the task of instilling a genuine awareness in the political decision-making bodies of the necessity and desirability of an area-related educational policy and of providing an objective foundation for the corresponding decisions. Attention has, however, also been drawn to the fact that as a basic principle the aim of such an Institute should not merely be to shape opinions and prepare for decisions; it should also appraise existing decisions critically and urge a review when this seems necessary in the light of scientific evidence or expert knowledge. However, doubts have been expressed as to whether these expectations can be met by an Institute which is directly dependent on the Ministry of Education and Culture.

Because of the administrative status of the Institute and the close co-operation between it and the Ministry of Education and Culture (especially with the Educational Planning Department in the Ministry), there is complete agreement between the aims which the Institute has set itself in the sphere of regional educational research and planning and the expectations of the Ministry. But the Ministry of Education and Culture also looks to the Institute for short-term assistance in reaching decisions on matters which lie outside the scope of its 'true' aims (co-operation in committees set up by the Ministry, statement of opinions on certain day-to-day problems, documentation, etc.). Indications given by the staff show that these tasks have so far taken up as much as 70 per cent of the Institute's capacity; this work is felt to be a hindrance but it is recognised as legitimate.

The officials of the Higher State Authority for Regional Development in the Bavarian Ministry of the Environment warmly welcome the Institute's objectives and its concentration on regional educational planning. Like the Institute, this Authority favours - in the interests of democratisation of the educational system - a shift from global analyses with artificial average values to studies making allowance for regional differences. Decisions taken by the Planning Authority affecting the educational system (e.g. the siting of primary schools) will be prepared and optimised through Institute studies. Connected questions, which it is hoped the Institute will answer, concern matters such as the time pupils can reasonably be expected to spend in travelling to school, transport facilities, the size of school intake areas and the links with secondary schools. The Planning Ministry therefore agrees with the Institute in considering that educational research should not centre on the education system in the narrower sense (e.g. teaching aims and methods) or on groups of pupils; it should 'go beyond these central problems into the cultural and social spheres and consider economic factors, population developments, social policy and regional planning strategy ...'6).

NOTES

1) SCHORB, A.O., Raum und Bildungsbewegung. Raumforschung und Raumordnung, 28, 1970, 198-202.

2) SCHORB, A.O., loc.cit., p.200.

3) SCHORB, A.O., Raumbezogene Bildungspolitik und wissenschaftliche Bildungsplanung in der Bundesrepublik Deutschland. Bildungsplanung und Raumordnung, Volume 61 of the Forschungs- und Sitzungserichte der Akademie für Raumforschung und Landesplanung, 1971, p.15.

4) SCHORB, A.O., Bildungsplanung - Was ist das? Almanach 1969, C. Heymann: Köln/Berlin/Bonn/München, p.25f.

5) This criticism which strikes at the very purpose of the Institute underlines the urgent need for a separate institute whose work will cover the advanced training and guidance of teachers in all types of school as well as the whole range of curriculum research. Since the institute designated to deal with these problems has assumed its new functions only recently and other project groups (e.g. on school career guidance) set up by the Ministry of Education and Culture are felt by practical critics to concentrate too much on pure scientific research and are prevented by their scruples from performing an advisory function, the Institute for

Educational Research and Planning has been expected so far to fill the gap even though it has set itself the task of merely preparing the ground for more objective political decisions rather than dealing with any of the practical consequences following these decisions.

6) SCHORB, A.O., Bildungsplanung für das Jahr 2000. E. SCHMACK (ed.), Bayern im Jahre 2000. Droste Verlag: Düsseldorf 1971.

Chapter III

STRATEGIES

3.1. Co-operation with the Ministry of Education and Culture and the Ministry of the Environment

The most important criterion which the Institute staff can use in determining the effectiveness of their own activity is the extent to which the scientific data they provide is taken into consideration in education policy decisions (since scientific studies can only lead to a practical improvement in the educational system through administrative decisions) so there is an urgent need for co-operation with political powers in the State and political leaders in the Ministry of Education as well as with the responsible administrative departments in the ministries concerned. Given this co-operation, it will be possible to avoid a separation between educational research in the Institute and educational planning in the Ministries. From this angle, co-operation with other groups such as teachers or other research establishments is a secondary factor which only plays a significant role in the context of the practical activities of individual staff members or in connection with specific research projects.

One special aim of close co-operation between the Institute and the Ministry of Education and Culture and of efforts to establish more intensive contacts with the Ministry of the Environment is to determine the current practical requirements of the education administration and the Higher State Authority for Regional Development. The Institute also intends to use this framework of co-operation to make the political bodies aware of problems which are relevant to educational planning and policy. However, with its pragmatic approach, the Institute prefers not to embark upon research until it is fairly sure that its activities will meet the needs of the political decision-making bodies.

The Institute does not see itself as a 'publicity department' of the Ministry of Education and Culture; it is quite prepared to argue with the Ministry, for example when its own research brings to light shortcomings in the educational sector caused by inadequate education policy planning in the past. The Director of the Institute indicated this when the Ministry of Education and Culture made known its misgivings over the publication of a study on 'Educational movement and regional structures': 'If the State Institute for Educational Research and Planning publishes the results of its studies in such cases, this is a token of the fact that it was set up as an instrument of a democratic education policy. Instead of being confined to a closed circuit consisting of the administration, government and research departments, information must also be made freely available to interested members of the public. A forward looking policy has nothing to fear from a well-informed public; difficulties will only arise if the public is badly informed or kept in the dark. Individual results may attract especial interest, particularly if they reveal an unsatisfactory situation. The State Institute does not seek contact with the public in order to make accusations but simply to demonstrate its firm belief that no taboos can stand in the way of educational research and that the analysis of existing conditions is a necessary first step if failings are to be remedied and constructive measures taken.'

However, since it is realised that the Institute as a State-funded body is subject to certain restrictions in breaking taboos, and in order to increase the effectiveness of its work - i.e. to ensure that the results of its research are taken into account by the decision-making bodies - nobody wants to break the relationship of trust between the Ministry of Education and Culture and the Institute and dabble in politics. The Institute is aware that educational research can work more effectively to renew the educational system through normal administrative channels than by issuing publications or mobilising public opinion through the mass media.

If the conclusions of the Institute's research and its resulting proposals are not taken up by the political bodies, it has no intention of engaging in political activity beyond normal contacts with the Ministries.

This strategy too is not based only on the fact that the Institute is a State-funded body, but also on the generally accepted fundamental relationship between education policy and educational research. 'We want education policy to be based on educational planning and research but this demand must not be misunderstood. Education policy cannot be made entirely dependent on educational research or on the contrary isolated from it. Research and policy are interdependent. This means that the primacy of political responsibility for decisions is not questioned.' 1)

But even if the Institute does not have an independent policy it need not pursue its research and planning work in an apolitical vacuum. The decision of a Ministry of Education and Culture to create its own Institute for educational research and planning is not a guarantee that the results, arguments and proposals put forward by this Institute will be accepted by the political bodies or even by the ministerial departments as a sound basis for education policy decisions or at least taken into consideration in education policy debates. Through close co-operation with politicians and ministerial officials, the Institute hopes to persuade responsible civil servants in the Ministries to move away from sectorial thinking and consider instead a broader pattern of relationships by making use of the results of educational research and the expert knowledge of research workers in the education policy debate. To achieve this aim, the Institute is trying to avoid any hint of scientific arrogance or 'knowing better;' it does not use scientific terminology which can only be understood by specialists and which might strengthen practical reservations against science through permanent frustration of the partners in the dialogue.

The Institute's efforts to create a favourable climate for educational research in general and for its own results and proposals in particular, include the agreement by its staff to undertake ad hoc projects for the Ministry of Education and Culture which do not fit in with its specific research objectives, even though the handling of these projects has so far taken up so much time that the Ministry itself has said that the Institute has been diverted from its real tasks. Nevertheless, the Institute's staff believe that the acceptance of this 'fire brigade' role is of major strategic importance. The Institute's co-operativeness will, it is hoped, make the ministerial departments more receptive to its suggestions, projects and proposals. 'Our work can only be effective if the Ministry of Education takes an interest in it.'

3.2. Public Activities

Although it is felt that co-operation between the Institute and political bodies, in particular the Ministry of Education and Culture, is the most important contributory factor towards achievement of the Institute's aims, other methods are also used to create the conditions for educational innovation or to keep the public informed of the Institute's activities and explain their importance in the context of efforts to bring about reform.

Co-operation with the Syllabus and Educational Planning Committees set up by the Ministry of Education and Culture is considered particularly important since they have a direct influence on education policy decisions.

Lectures are given and articles published in journals - especially in the Ministry's periodical 'Schulreport' which is distributed to all Bavarian schools - drawing the attention of teachers to the need for specific changes in the school system or explaining the reasons for changes which have already been made. Another less central aim is to help teachers to find their bearings in the changed school situation. Some members of the Institute's staff therefore contribute to in-service training for teachers in the framework of the 'Teachers' Symposium' organised by Bavarian Television. Activities of this kind are, however, considered to be of less 'strategic value'; while teachers are affected by the Institute's work they are not its direct 'clients'.

In order to bring the results of the Institute's work to the notice of a broad public, articles are contributed to journals, there are lectures and occasional Press conferences or Press releases; books are also published in two scientific series: reports on projects whose relevance extends beyond a particular region are published by Klett Verlag of Stuttgart in the series 'Publications of the State Institute for Educational Research and Planning, Munich' while those which are of more specific interest to Bavarian education are published by Ehrenwirth Verlag of Munich in the series 'Studies and Documents of the State Institute for Educational Research and Planning'.

3.3. Research Strategies

Specific research strategies can be defined for the Institute, taking the need for area-related educational planning and research as the basic assumption. The Institute rejects from the outset the tendency of educational research and planning to suggest that a specific education or school system is the only logical and feasible one, without reference to regional characteristics. In the Institute's opinion equal educational opportunities for the whole population cannot be achieved solely by a uniform education system. The Institute cannot accept the idea of a single optimal model for all regions and areas. 'As political decisions become aligned to man's situation in society, so attempts to force through rigid unification are abandoned and flexible concepts developed to take into account differences between local conditions and the related motivation for participation in education.'[2] The Institute's staff therefore feel they should not commit themselves to a specific position in current discussions on the introduction of certain unitary models (e.g. integrated comprehensive schools).

In order to plan an efficient and socially just education system, meeting the special needs of Bavaria, the Institute proposes amongst other projects to study the educational possibilities offered by modern methods of communication. Its intention is to reverse the trend towards increasing centralisation of educational establishments in the cities. For this purpose data and information must be collected to serve as the basis for plans to bring education closer to the population.

This leads to certain consequences for research strategy in the narrower sense, i.e. for methods of data acquisition in specific projects. Quantitative surveys must be carried out, taking into account all the economic factors which affect the education system. Such surveys can only be meaningful in areas which are not too large to prevent the decisive planning parameters from being evaluated, or, on the other hand, so small that only detailed structural research is possible, which can no longer provide a basis for planning oriented towards larger areas.

These surveys can be carried out by analysing and evaluating from specific angles the data contained in statistical yearbooks or, where the available data is incomplete or not up to date, by sending questionnaires to institutions or persons who can supply the information needed to fill in the gaps.

Data which is considered relevant for educational planning is therefore not normally collected from individuals who are directly involved in the process of education (pupils, students, parents, teachers). Instead it is acquired at the 'second level' by consulting such bodies as the Educational Statistics Department in the Ministry of Education and Culture, the State Office of Statistics, the Higher Planning Authorities, the District Authorities, School Inspectorates, Teachers' Associations, Economic Associations and Trade Unions. Data will be directly compiled by the Institute in exceptional cases only, primarily because of its limited staff capacity; the need for this direct activity will diminish even further once the surveys conducted by the State Office of Statistics include questions suggested by the Institute and when arrangements have been made to forward this data rapidly to the Institute.

It has been stressed that this strategy is characteristic of the Institute to the extent that it is committed to concentrate on problems of regional educational planning; if its role changes a new research concept and modified strategy will be needed. The Institute's staff therefore realise that if, for instance, the project groups attached to it deal with problems other than those which are central to the Institute's activities, they will have to develop their own research strategy.

The planning and implementation of empirical projects are discussed at fortnightly meetings between members of the scientific panel and a strategy and research design is laid down for each individual project. Suggestions and advice are expected mainly from two staff members who have studied methods of empirical research.

Attention has, however, been drawn to the fact that time is often too short during the fortnightly departmental meetings to consider research projects in detail, so that informal discussions are also necessary to clarify methods.

Apart from the generally accepted overall strategy described above for regional educational research and planning projects, dissatisfaction has sometimes been expressed with the fact that the research methods and theoretical position of the Institute or its staff are too monolithic and insufficiently explicit to lay down practical strategies for scientific studies. In order to remedy this shortcoming, an advanced training seminar lasting for several days is planned for staff members, during which basic problems of method and scientific theory will be discussed.

NOTES

1) FÜHR, Chr. (ed.), Zur Bildungsreform in der BRD. Beltz Verlag: Weinheim/Berlin/Basel, 1969, p.49.

2) SCHORB, A.O., cf. Note 1 on Chapter 3, loc. cit., p.199.

Chapter IV

ORGANISATION

4.1. Features of the Institute's Structure

The Institute is directly dependent on the Bavarian State Ministry of Education and Culture and its staff are all public servants. It is attached to an educational planning department in the Ministry and funds allocated for staff, materials and research are listed in the Ministry's budget. Any change in the resources provided for the Institute requires the agreement of the Ministry and the approval of the Bavarian State Parliament.

The Ministry and the director of the Institute agree that no guidelines must be laid down for its scientific work. In reality, however, there are certain limitations on this guarantee of freedom for scientific research in the Institute. The subjects for research are sometimes chosen by the Institute itself and sometimes based on instructions given by the Ministry. As has already been indicated, the Ministry and Institute always work closely together in planning studies. The results of research projects are generally submitted to the Ministry for its information prior to publication but not to obtain approval for publication.

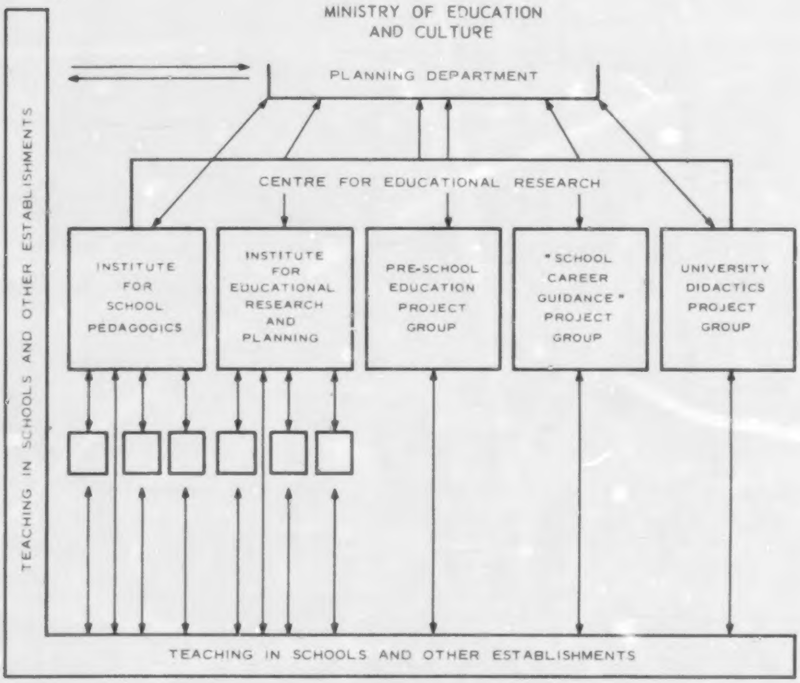
These close links between the Ministry and Institute are reflected in the Press release issued when the State Institute for Educational Research and Planning first began its work: '... The Institute also has a particularly important role to play in advising the Ministry of Education on all aspects of educational planning at regional and supra-regional level. This applies in particular to the Ministry's co-operation in the German Education Council. Scientific studies by the Institute are intended to guide the attitudes adopted by the Ministry in consultative bodies, and the Institute also helps to put the conclusions reached by these bodies into practical effect.' 1)

The relationship between the Ministry and Institute, i.e. between education policy or administration and research, is therefore seen as both co-operative and antagonistic. According to Dr. Schorb, each of the two partners 'must first attempt to gain influence over the range of possible options open to the other and use these possibilities for his own purposes. Scientific experts lack political weight and they try to gain the real power to implement their projects. Politicians may easily look upon possession of the instruments of control provided by science as a mere servo-system with which they can create a better motivation for political intentions and gain greater publicity among the science-oriented public. The tension remains beneficial if the partners successfully resist any change in their basic character. Science then becomes a seismographic control and monitoring instrument which ensures that political action is correctly designed while politics remain a system of government based on political legitimation and responsibility so that there is no attempt at manipulation without political legitimation. This aloof but co-operative relationship of tension imbued both with productive distrust and willing mutual trust enables both partners to use their possibilities.' 2)

The State Institute is one facet of an extensive system of educational planning in the Bavarian Ministry of Education and Culture. The planning structure is shown in diagram 3:

Diagram 3

ORGANIZATION OF EDUCATIONAL PLANNING IN THE BAVARIAN STATE MINISTRY OF EDUCATION AND CULTURE


MINISTRY OF EDUCATION AND CULTURE
PLANNING DEPARTMENT
CENTRE FOR EDUCATIONAL RESEARCH
INSTITUTE FOR SCHOOL PEDAGOGICS
INSTITUTE FOR EDUCATIONAL RESEARCH AND PLANNING
PRE-SCHOOL EDUCATION PROJECT GROUP
"SCHOOL CAREER GUIDANCE" PROJECT GROUP
UNIVERSITY DIDACTICS PROJECT GROUP
TEACHING IN SCHOOLS AND OTHER ESTABLISHMENTS
TEACHING IN SCHOOLS AND OTHER ESTABLISHMENTS

The following external institutes and project groups are dependent on the Planning Department in the Ministry which is directly answerable to the Minister:

Institute for Educational Research and Planning: responsible for research into all regional and school organisational problems and also for follow-up studies on school experiments.

Institute for School Pedagogics: responsible for developing curricula and methods as well as for the further training of teachers.

'School career guidance' project (Chair of Pedagogics II at Munich University): set up to develop the psychological basis and test methods needed for general educational guidance.

There are also plans to establish institutes of pre-school education and university didactics.

The close relationship between these educational planning establishments and the Ministry is reflected in the fact that the Director of the State Institute for Educational Research and Planning attends the monthly meetings of the Ministerial Planning Committee with full voting rights. It is planned to group the institutes and projects together in a 'Centre for Educational Research' in the near future.

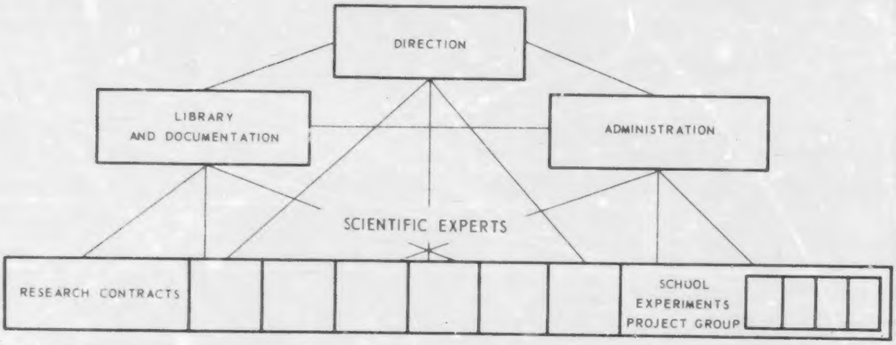
The internal organisation of the State Institute for Educational Research and Planning is still informal. The internal structure has, however, developed on the lines shown in diagram 4.

The Director of the Institute is also professor of general didactics at the Teacher Training College in Munich and is head of the College's Institute for the Observation of Classroom Situations (Institut für Unterrichtsmitschau). He is therefore only able to devote a part of his time to the Institute. His duties consist primarily in formal management of the Institute, in taking charge of outside contacts, developing basic plans, proposing and encouraging scientific studies and converting the results of studies into educational policy activities. He therefore only has limited responsibility for the continuous management and guidance of projects. The deputy director also gives him considerable support in administering the Institute on his behalf.

The scientific experts are all research project heads. The Institute has the following experts at present:

Diagram 4

INTERNAL ORGANIZATION OF THE STATE INSTITUTE FOR EDUCATIONAL RESEARCH AND PLANNING, MUNICH


DIRECTION
LIBRARY AND DOCUMENTATION
ADMINISTRATION
SCIENTIFIC EXPERTS
RESEARCH CONTRACTS
SCHOOL EXPERIMENTS PROJECT GROUP

2 education scientists (the director and an expert in the problems of junior and upper primary schools);

2 psychologists (one of whom is concerned primarily with problems of educational planning, while the other is an expert in electronic data processing);

2 sociologists;

1 politologist (specialising in adult education);

3 secondary school teachers (one of whom has long experience of documentation work).

When necessary, the scientific experts are given limited support by temporary scientific auxiliaries and students. There are plans to appoint an educational economist, a legal expert and a geographer in the near future. Some staff members are pressing for the appointment of a psychometrician and a psychologist who would also remain professionally active. Since there are few possibilities for promotion in the Institute itself, its positions are looked upon as intermediate steps in a professional career. Ministries, universities and other research establishments are seen as potential future employers. The Institute has not been in existence long enough to determine how valid this forecast in fact is.

The library and documentation centre, with a permanent staff of four, are particularly important for the performance of the Institute's work. Electronic data processing (EDP) is also becoming increasingly important. EDP experts are frequently called upon to assist in evaluating data; however, they would prefer to be consulted at the research planning stage too.

Several persons pursuing independent research activities and a 'school experiment' project group, consisting of 3 qualified sociologists, 5 psychologists and a secretary, are also attached to the Institute. The group is at present engaged on a scientific background study of current or planned comprehensive school experiments in Bavaria. On the whole, the scientific staff enjoy such great independence and there are so few links between their different projects, that the Institute appears less as a unified working group than as the integrated sum of its individual projects.

4.2. Problems of Interaction and Communication

Because of the Institute's manageable size, its good working atmosphere and the lack of a rigid organisation, informal contacts are more important than formal channels of interaction and communication. The informal flow of information between members of the Institute is satisfactory, but there is no reliable and foolproof network of communication. This is particularly true of the exchange of information with the Director, who cannot be present all the time because of his many other duties; it also holds good for those staff members who - because of the position of their place of work, the nature of their activity (documentation, EDP, project group) or their personality - are not constantly involved in informal contacts. Under these conditions certain information gaps, insufficient consultation on specific projects and the desire for better communication are inevitable. This problem is heightened by the fact that most of the staff have heavy commitments for research, committee work and lecturing. In addition, the size of the Institute's staff (including the project group and special research programmes) and the range of projects have reached a scale on which more formal arrangements for the exchange of information and social interaction seem essential. These problems and their implications were recently discussed at an Institute meeting.

Although informal contacts are the most important source of information and the preferred form of communication in the Institute, regular meetings of staff and specialists are particularly useful. The Institute Director reports to them on his outside contacts and on any related short, medium and long term tasks of the Institute. Specific aims of the Institute, working projects, staff changes, etc. can be discussed and when necessary it is also possible to examine current projects from a scientific angle. The importance of these discussions is stressed by all the staff; the only question is whether they should be intensified and perhaps organised more efficiently.

Problems of immediate interest necessarily dominate the discussions between specialists and staff; consideration of long term aims, general methodological problems, major developments in education policy and new scientific trends is therefore usually too brief. In order to examine problems of this kind and place the corresponding scientific and education policy attitudes of the Institute in a more general context, seminars lasting several days are occasionally held outside Munich. Meetings such as this will obviously tend to co-ordinate the attitude of staff members on the Institute's necessary tasks and the best means of performing them.

In keeping with the typical style of the Institute, informal contacts through the Institute's director are also the principal channel of communication with the Ministry of Education and Culture, the political parties and the teachers' associations etc. It is generally agreed that these contacts are adequate.

Since the Institute's director also belongs to the Planning Committee of the Ministry of Education and Culture and is represented on many other committees, information should always be obtained at an early stage on new or likely trends in education policy.

On the other hand institutionalised contacts with other scientific establishments (universities, institutes of higher education, research institutes) appear to be less well organised and varied. The extent to which individual staff members co-operate with scientists in other Institutes, exchange information and participate in the further development of scientific methods and theories is left largely to their own initiative. On the whole, however, we believe that the Institute has successfully avoided, in the first few years of its existence, the inherent risk of isolation in the education policy and/or scientific spheres.

4.3. Decision-making Processes

Since the Institute is dependent on the Bavarian State Ministry of Education and Culture, its staff are formally subject to ministerial supervision. In practice, however, there is no such supervision. All the important decision-making powers are vested in the Institute's director and in his absence in the deputy director. There is no official provision for staff participation, but this does not mean that the staff are isolated from the decision-making processes in the Institute. On the principle of 'collegial discussion without collegial decisions,' the Institute management tries to take its decisions only after prior discussion and efforts to reach a general consensus of opinion. By comparison with the other staff members, the director is of course able to fall back on his fuller information, greater power to take initiatives, argumentative skill and ability to gain acceptance of his own ideas coupled with the influence of his position. A formal vote is not usually taken. The director reaches the final decision but makes informal allowance for the results of discussions. The director clearly has a pre-eminent position and some decisions (e.g. on staff matters) are taken without prior discussion; nevertheless, while it cannot be assumed that all staff members have an equal say in discussions, everyone involved stressed that the Institute's management style is not authoritarian. The way in which decisions are taken is approved in most cases. Only isolated criticism is voiced in the Institute coupled with a call for formal arrangements for participation.

This general satisfaction with the way in which decisions are prepared and taken is probably largely explained by the fact that the scientific specialists are able to work in complete independence under their own responsibility. Projects are admittedly chosen and initiated in agreement with the Ministry, the Institute management and the staff assembly, but the research planning and the methods, implementation and evaluation of the study as well as the presentation of the findings are left almost entirely to the individual experts. Each staff member therefore has a relatively wide measure of freedom to pursue his own scientific interests, develop a personal working style and take project-related decisions independently.

4.4. Staff Opinions on the Institute's Organisation

On the whole, the staff have a highly positive opinion of the Institute's organisation and administration. The lack of a formal statute or a firm organisational plan is not seen as a drawback by most of the staff. The following points were felt to be particularly satisfactory: the broad measure of personal and scientific freedom; the predominance of informal patterns of communication over formal arrangements; the director's management style which is not authoritarian and encourages personal initiative; the manageable size of the Institute; the good working atmosphere and the institutionalised links with the Ministry of Education and Culture as the body which can most effectively convert the results of educational research into education policy and administrative decisions applicable to the schools.

On the other hand criticism has been levelled at the lack of team-work in preparing projects; poor co-ordination between the scientific project groups and the 'service departments' (library, documentation, EDP, administration); shortage of research funds (in particular for employing auxiliary staff); shortcomings in the information and communication system and the absence of formal provision for consulting all the staff and allowing them to participate in the decision-making process.

It is agreed that the present organisational structure has proved adequate in the development phase. But the growing size of the Institute is already raising difficulties. The problem of solving these without losing the advantages of the existing organisation seems to be one of the main topics of internal discussion at present.

NOTES

1) Nachrichten des Bayerischen Staatsministeriums für Unterricht und Kultus, 15.9.1967.

2) SCHORB, A.O., Bildungsplanung - Bildungspolitik. Unpublished manuscript of the Staatsinstitut für Bildungsforschung und -planung. München 1971, p.18.

Chapter V

ACTIVITIES

The objectives of the Institute's research projects are discussed briefly in this Chapter and three projects described in detail in order to illustrate its aims and strategies again. 1) Other activities which do not come under the heading of empirical research work are listed in a third section.

5.1. Summary of Completed and Planned Projects

5.1.1. The relationship between social and educational structures in selected Bavarian districts (Landkreise)

By summarising social and educational statistics covering a number of districts in Bavaria it was hoped to elaborate fundamental principles on which political decisions for further development of the education system could be founded. Professor Dr. Ritter began this project in Autumn 1967. It was also hoped - although this did not prove possible - to provide evidence of a relationship between development of the school system and development of the social structure in a given region. Work on this project was seriously hampered by the fact that the Institute did not have a data processing expert on its staff or access to a computer centre. The results of the project were published in 1972.

5.1.2. At the end of 1967, the Institute was notified by the Ministry of Education and Culture that additional funds would be given to it for research. It then commissioned three outside scientists to conduct research on the following projects which were put in hand in the spring of 1968:

a) The effect of the creation of new schools on schooling in a given area
This study was completed at the end of 1970 and the results were published in 1971. The project was designed to investigate the background of pupils attending newly

established lower and general secondary schools. The implications for education policy of establishing new schools in areas where school facilities were previously either good or poor were studied in order to obtain criteria for evaluating measures laid down in the Bavarian school development plan.

b) Industry and secondary schools as determining factors in the choice of a place of residence
This sociological survey was designed to study the role played by the existence of secondary schools when parents working in skilled jobs choose a place of residence. It was hoped to determine in this way how carefully organised educational policy measures can be used to prepare for industrial development in the framework of long-term state planning programmes. The project has been completed but no results have been published.

c) Study of pupils who cross state frontiers to attend school
The third study has been completed but again the results have not been published. It was designed to investigate why pupils who live close to the boundary between the states of Hesse and Baden-Württemberg attend schools in the state in which they are not resident.

5.1.3. Analysis of the structural reform of primary schools in a Bavarian administrative region (Regierungsbezirk)

This study was also commissioned by the Institute from an outside scientist in 1969 and the results are now being prepared for publication. It is designed to provide documentation and criteria for school development plans in the upper primary school sector by analysing publications and evaluating existing statistical data. The following partial studies have been completed:

a) review of school planning criteria in the Federal Republic;

b) analysis of the reasons for resistance to structural change in the primary school sector;

c) structural comparison of the situation before and after the primary school reform implemented in Swabia in 1969.

5.1.4. Model upper primary schools in Bavaria: an analysis of reports on practical experience

This study was published under the above title by Dr. Nowey in 1970. (Ehrenwirth Verlag, Munich).

In July 1967 the Ministry of Education and Culture designated 23 primary schools in Bavaria as model upper primary schools. Upper primary schools are schools of secondary level comprising classes 5-9 in most states of the Federal Republic.

The upper primary school syllabus includes a foreign language and background tuition preparing pupils for an active career. All pupils receive the same "central tuition" and "course tuition" (which differs according to their ability and inclinations) leading up to a school leaving certificate with several different grades. 2)

The model upper primary schools have been given the task of:

- making fuller use of subject group teachers;
- ensuring more intensive teamwork between teachers;
- introducing teaching of English;
- creating optional courses and interest-based courses;
- catering for pupils of differing ability;
- developing methods to allocate pupils to suitable classes and arrange transfers between classes;
- completing the necessary building and conversion work at an early date.

The publication is based on verbal and statistical reports by the schools on the implementation of these tasks. The school experiment descriptions sent in by the schools have been evaluated primarily with a view to obtaining information on initial experience with organisation, curriculum and teaching methods; this enables comparisons to be drawn with other school systems.

The decision to introduce upper primary schools in Bavaria had already been taken before the model schools were set up, so the experience gathered in them could not be used to check the validity or expediency of this general education policy decision. The main purpose of the critical survey of the first year's operation of model upper primary schools was to enable all primary school teachers to benefit from the experience gained. Teachers working in the model upper primary schools had already advised their colleagues from other schools during the first year; the "experience reports" which were systematically evaluated by the Institute continued this informative and advisory activity in a more general form.

5.1.5. Medium level school leaving certificates

This project was begin in mid-1970 by Dr. Schmidbauer and is due to be completed towards the end of 1971. In particular a quantitative and qualitative study is being made of the relationship between a) the medium level or upper primary and technical school leaving certificates and the courses of further education which holders of these certificates may attend, and b) career openings. Information on these problems will be useful for long term educational planning. In addition to secondary analysis of existing educational statistics, pupils themselves (in the 10th class of the various upper primary and secondary schools) are being interviewed. Questions are put to them on their fathers' professionsin order to determine their social origins; the questionnaire is also suitably framed to determine pupils' plans at the end of the 10th school year. This information will help to determine the demand for specific secondary school courses.

5.1.6. Scientific background studies on the comprehensive school experiments in Bavaria

At the suggestion of the Institute (but wit out any specific request to this effect) the project group which is conducting these studies was attached to the Institute by the Ministry of Education and Culture; its study was begun at the end of 1970 and is due for completion by 1976. It will then have to be decided whether, and under what conditions, the introduction of comprehensive schools in Bavaria would eliminate major drawbacks inherent in other school systems.

When the project group presented its research programme to a departmental meeting of the Institute in the spring of 1971, a lively discussion ensued: would the project group's concept give results which could provide an objective foundation for this important education policy decision? Or would it merely reveal extremely specific phenomena and processes - connected with the highly differentiated internal structure of a comprehensive school system - which might possibly prove useful in designing a curriculum? The project group plans, for example, to analyse whether the relationship between the type of education given by teachers and parents and the school performance or intelligence of pupils differs in comprehensive and traditional schools; this study is of some basic importance in solving the related methodological problems but it is only of secondary significance in reaching education policy decisions. 3)

The project group itself intends to make a comparative analysis (comprehensive schools versus 'traditional schools') of the relationship between predictive factors (characteristics of parents, teachers and school system; qualifications of pupils for a particular course) and criteria (intelligence, school performance, motivation, attitudes, social behaviour patterns of pupils) in order to answer the following central questions:

Are the different school systems equally effective in creating equality of opportunity, taking social and regional factors into account?

Are there differences in the social integration of pupils?

Does the intensification of education vary as a function of the range of educational facilities offered?

The comprehensive school teachers would like the project group to advise them on organisational matters and problems of educational psychology; however, the members of the group feel that this will not be possible until the first scientific results of their study have been published.

5.1.7. Study of the conditions for improving school facilities in a federal development area

This project, which is being headed by Professor Dr. Ritter, has been generally described as the most typical study conducted by the Institute, in that it corresponds best to the true aim of the Institute, i.e. to conduct regional educational research and planning. It was begun early in 1971 as a pilot study to back up future research and plans for the whole of Bavaria. The Institute found it necessary to embark upon this study because existing scientific work on school planning is either too specific (determination of school sites in cities) or too general to provide a basis for school development plans in Bavaria. The Institute is therefore trying to lay the foundations for plans geared to the real school system. The aim of the study is to analyse as completely and accurately as possible factors which are important for the school system in a given region in order to define criteria for planning, siting, structures and development measures. Once these criteria have been quantified an attempt will be made to simulate planning alternatives on a computer (see 5.1.8.).

The first stage of the study consists in a full analysis of the local and social origins and length of schooling of all pupils in all types of school in the reference area. Questionnaires have been forwarded to the schools and teachers are being asked to enter the relevant data. Secondly a detailed survey is to be made of the material and staff resources of all the schools. Publications by the school administrations and State Office of Statistics will be the main source of this information. Interviews will also be arranged at 'informational contact points in the area under study' to determine the opinions of the rural districts, communes and school heads on the planned development of the school system and their attitude to the possible creation of day or weekly boarding facilities.

It had been proposed to arrange direct interviews with pupils and parents to determine motives governing the choice of school or career but this enquiry has been postponed for the time being.

5.1.8. Simulation model

Dr. Bedall is at present designing a suitable model. Working with accurate basic statistical data covering the whole sphere of education, computer simulation will be used to answer questions of the following kind: what is the minimum requirement for schools of a particular type in a given region? Where should these schools be sited? How many teachers do they need? How far will pupils have to travel? What means of transport are required?

Fundamental decisions must, however, first be taken on the average and maximum permissible distances pupils may travel and on the maximum and minimum size of schools, etc.

5.2. Characteristic Activities

5.2.1. Background studies on the orientation stage

A short-dated decree was issued by the Ministry of Education and Culture requiring two towns and one rural district in Bavaria as well as the Bavarian experimental co-operative comprehensive schools to test a draft syllabus for the orientation stage at the beginning of the 1970/71 school year with a view to determining its practical value. (For a full explanation of the orientation stage, which is briefly a common initial course for all secondary pupils, see Wetzlar case study in this series.)

'At the end of the four year junior primary school course, the orientation stage comprises the 5th and 6th year classes in the upper primary and general secondary schools. Its main aim is to determine pupils' aptitudes reliably and so enable them to be directed towards the appropriate type of school. It has the dual function of detecting the aptitude of each pupil in the two year period and developing that aptitude. It will also help to balance out regional and social differences in education. The curriculum, timetable and syllabus of the orientation stage are essentially the same in the upper primary and general secondary schools. This makes it possible for pupils from the orientation stage to transfer to the 7th year in one of the three types of senior school (upper primary, lower secondary and general secondary schools). School career guidance will be developed to help pupils to select the most suitable courses. 4)

The Institute for Educational Research and Planning strongly favoured the immediate introduction throughout Bavaria of the orientation stage which it felt met the major criteria for educational innovation: compensation of regional and social disparities in education, short term practicability and objective justification (a more reliable decision can be taken on a pupil's future education when he is 12 than when he is 10). The Institute's commitment to this aim was also reflected in intensive co-operation in the design of curricula for the orientation stage. The Institute and Teachers' Associations both believe it is particularly important for education policy in Bavaria to lay down a common curriculum for upper primary and general secondary schools quite apart from the criterion of curriculum quality.

The Institute's commitment to the orientation stage was reflected in a lecture on the 'Meaning and significance of the orientation stage' given by its Director to the teachers responsible for conducting the experiment. Members of the Institute's staff also visit the schools concerned from time to time.

The Institute's pragmatic approach ('short term changes which are not perfect but still better than the status quo are preferable to no changes at all') led it to accept a compromise which in fact contradicts the purpose of the orientation stage: during the experimental phase it remained possible for pupils to transfer to a general secondary school after the 4th school year (i.e. at the age of 10). In the 5th and 6th class of the upper primary schools the pupils remaining after this selection therefore had to follow a syllabus which, according to the upper primary school teachers, conformed to the existing teaching practice of the general secondary schools.

Teachers in the upper primary and general secondary schools feel that they have been left to their own devices in solving the organisational, psychological, methodological and tuitional problems which arise in the trial of the orientation stage.5)

The Institute's planned background study on the orientation stage did not get off the ground first and then was limited to an investigation of the social background of pupils and a few problems of pupils' transport in two of the districts in which the experiment is taking place. The reason for this limitation is that it is not clear at the moment whether the Ministry of Education and Culture will in fact order the introduction of the orientation stage throughout Bavaria in the foreseeable future and what the modalities of the introduction might be.

5.2.2. The state of adult education in Bavaria: an empirical, statistical analysis of a critical survey of adult education in Bavaria

This study was carried out and published - initially as a report to the Bavarian State Parliament - by Dr. Meister.

In 1968 the Ministry of Education and Culture asked for this study to be prepared for the Bavarian State Parliament. Data relating to adult education in Bavaria in 1968 were collected. The project was carried out as an empirical, statistical study not designed to support a preconceived education policy concept for a possible future system of adult education. On the contrary, the aim was to conduct an objective survey to help in determining the best possible form of adult education.

Because of the aims of the study as well as the personal and financial resources and time required to complete it (1 scientist belonging to the Institute's panel, submission of the results in late 1970, financing by the Ministry of Education and Culture from the limited resources available for adult education) the number of adult education establishments examined had to be limited. The criterion chosen for selection was financing by public funds or the desirability of financing according to the recommendations issued by the Permanent Conference of Ministers of Education and Culture in 1964.

It was decided not to limit the range of subjects considered by adopting a preconceived notion of adult education. All the subjects offered by the selected establishments were therefore taken into account in the evaluation with the exception of retreats, days of meditation and other strictly religious programmes.

A questionnaire was prepared in close co-operation with the organisations responsible for adult education in Bavaria. Using it, the areas of educational activity, number of courses, forms of work, number of participants, staff structure, financing arrangements, teaching aids, and other facilities were all investigated.

The questionnaire in its final form, agreed upon by the responsible organisations, was sent out to 600 establishments. With a response rate of more than 90 per cent, the author believes that evaluation of the material gives, with regard to regional specialities (cities in comparison with the country), a realistic picture of the situation of adult education in Bavaria in 1968.

The results of this study have considerable implications for education policy because a comparison of the extent of educational activity (range of courses offered) and appeal to the public (number of participants) on the one hand and the amount of support from public funds on the other, showed that public subsidies to the organising bodies did not make sufficient allowance for the criterion of efficiency. In the conclusions to the study, the Institute director emphasises that the first task of the Bavarian State Parliament must be to remedy the disparity revealed by the survey between the work done by individual organising bodies and their share of public funds.

As a further conclusion from the results of the survey, the state Parliament is called upon to organise adult vocational training courses on a more intensive and systematic basis and provide greater assistance for this training than in the past; at the same time the existing adult education activities in other main sectors must not be curtailed.

Although the Institute first submitted the results of its study to the Ministry of Education and Culture and to the State Parliament which had commissioned it and did not inform the bodies responsible for organising adult education, some of its general findings concerning what the project leader felt to be an unjust distribution of public funds nevertheless leaked out; this provoked massive criticism from the organisations involved, although the objections were very general as detailed results were not then known. The main criticism concerned the lack of clarification of the subject of the study; its critics said that the concept of 'adult education' had not been defined, and so all the themes of courses in which adults participated which had been indicated by the responsible bodies and their subsidiary organisations were not considered relevant and important. 'Empirical study and statistics cannot provide a solid foundation for education policy without a clear definition of their subject area.7)

The objection was raised that the Institute had accepted the interests of the organising bodies uncritically without making the necessary scientific corrections (the discussions were, however, generally attended by the Institute Director or his deputy as well as the project leader). Organisations which were less adversely affected by the results of the study considered the way in which it had been conducted satisfactory; they approved of the close co-operation, lack of scientific arrogance and acceptance of practical suggestions. All the organising bodies consulted regretted that the results submitted in 1971 referred to the conditions in 1968. There had been certain changes in the intervening period and it was difficult to justify basing educational policy decisions on earlier data. 8)

5.2.3. Educational movement and regional structures: an analysis of admissions to lower and general secondary schools in Bavaria in 1963-1967, by A.O. Schorb and M. Schmidbauer

This study which was published under the above title in 1969 has been quoted by Institute staff almost as often as the project described in 5.1.7. (on 'Conditions for improving school facilities in a federal development area') as highly typical of the Institute's work.

Working from statistics for the number of pupils, transfer rates were calculated (percentage of pupils from a given primary school year who go on to secondary education) and the figures determined in this way analysed in various comparisons (longitudinal and cross-sectional comparisons of urban and rural districts and comparisons within these districts). The results showed a considerable disparity in transfer rates between the urban and rural districts while the number of transfers to secondary schools rose both in urban and rural districts between 1963 and 1967. It was therefore possible to show that the average transfer rates to secondary schools calculated for the whole of Bavaria concealed deviations from the mean values caused by regional factors.

The conclusions of the study which are significant for education policy have been summarised as follows by the Institute's Director:

1) The Free State of Bavaria cannot be treated as a fully homogeneous area for purposes of education policy. The varied regional structure is clearly reflected in processes in the education system. In the smaller social-geographical regions, identical measures will in each case have different

results. The study has shown, e.g. that transfers to lower and general secondary schools have increased everywhere under the influence of publicity given to education but the aim of achieving a complete balance has not always been achieved. In general the relationship between regions with intensive education and those with a lower intensity of education has not changed significantly.

2) Examination of the causes shows that the lack of participation in education cannot be explained by any single factor. Varying levels of interest in education among the different population groups are a contributory factor as are poor transport conditions and the fact that the network of secondary schools contains several gaps. The importance of individual factors varies. The study showed for instance that an improvement of transport facilities, i.e. provision of a dense network of school buses, could improve the educational structure more rapidly in some regions than the construction of new schools which would have a long term effect.

3) The surveys showed substantial regional differences in the sociological structure and aptitude of pupils attending secondary schools. These conclusions suggest that the aims and role concept of the different types of school should be reviewed. In areas with a weak school structure not all pupils who could benefit from intensive secondary education have the necessary facilities; in the densely populated areas on the other hand the lower and general secondary schools take in many pupils who are not properly suited or completely unsuited for them. This fact highlights the importance of the most urgent problem in Bavarian education policy, i.e. the development of junior schools into upper primary schools as a new form of basic secondary education. The results of the study show that the development of upper primary schools is the most important immediate task for an education policy which is designed to assist the different social groups. Two aims are being pursued in extending the system of upper primary schools:

   a) to bring about a rapid improvement in the educational structure of rural areas and so prepare the way for economic development, and

b) to relieve the strain on lower and general secondary schools in urban areas thus enabling them to pursue their true educational objectives once again.

This project is of major importance as a confirmation of the aims and strategies which the Institute has chosen to follow; the results of its study and the ensuing proposals to remedy regional disparities in education have been used in educational policy. The Institute has also been asked to follow up the development of the transfer rates to secondary schools in urban and rural areas.

Economic and planning experts in other ministries also consider this study valuable; for the first time it has clearly emphasised the need to co-ordinate educational and economic development programmes with each other and also with the special regional structures. In practical terms, one result of this activity of the Institute has been an improvement in co-operation between departments in different ministries.

After a Press conference arranged by the Institute, the regional and national newspapers reported the results of this study in some detail under headlines such as 'Better use must be made of our schools' and 'Educational equality is still a long way off in Bavaria.'

5.3. Advisory and Committee Work

Amongst the other work which does not come under the heading of empirical research is co-operation in the development of upper primary schools by measures to support the 23 model upper primary schools designated by the Ministry of Education and Culture in Bavaria: by organising two important conferences, and by visits to individual schools and co-operation in advanced teacher training programmes in 1968/69.

The Institute was also helping with the development of a new curriculum for the 9th upper primary school year (introduced in Bavaria in the autumn of 1969) in co-operation with the Ministry and teachers in the upper primary and vocational schools.

In connection with the work of the 10 committees of experts appointed by the Ministry of Education and Culture to deal with individual types of school and school stages, representatives of the State Institute have been given the task of providing basic scientific material (documentation, summaries of the situation throughout the Federal Republic, curriculum comparisons, etc.), ensuring the exchange of information between individual committees and in particular urging the committees to respect basic structural concepts (integration and school stages). The committees are at present working on: infant schools, junior primary schools, orientation stage, upper primary schools, 10th school year, middle classes in general secondary schools, full-time vocational schools, vocational extension schools, senior technical schools, senior classes in general secondary schools, final secondary school classes.

NOTES

1) The following observations are based primarily on the Institute's documentation and publications on the different projects.

2) PONADER, H., Zur Terminologie des Schulwesens. In: Pädagogische Welt 24, 1970, p.478.

3) The fact that these discrepancies between the ideas of the majority of the Institute's staff and the project group only became clear at a relatively late stage - when plans were already well advanced and the organisation of the first empirical studies had already begun - can be explained by the relatively loose contacts between the Institute and project group on the scientific level.

4) Bayerisches Staatsministerium für Unterricht und Kultus (ed.), Schulreform in Bayern. Band 1. November 1970, p.113.

5) Because they are well aware that the performance test used up to now is inadequate, the teachers themselves are trying to develop relatively valid tests or adopt commercially available school performance tests in order to ensure that all pupils in the upper primary and general secondary schools at least are assessed by identical criteria. They realise, however, that aptitudes can only be determined effectively by a valid aptitude diagnosis and that they cannot themselves accept responsibility for school career guidance based on valid test methods at the end of the sixth class. In the opinion of the teachers directly concerned, not only the State Institute for Educational Research and Planning but also the Institute for General Secondary School Pedagogics and the Project Group on School Career Guidance are proving far too reticent on the subject of guidance, control and evaluation in the orientation stage; this criticism is

directed primarily at the State Institute because it seemed to be the advocate and initiator of the orientation stage.

6) The impression might be gained that the Institute's commitment varies as a function of the commitment of the Ministry of Education and Culture.

7) SCHORB, A.O. and SCHMIDBAUER, J., Bildungsbewegung und Raumstruktur. Klett: Stuttgart 1969, p.11.

8) The Institute counters this criticism by pointing out that agreement had been reached with the education authorities to phase the study over a period of 2½ years: the Institute could not have accelerated the project without more staff. This in turn would have been the responsibility of the authorities themselves to the detriment of adult education, since the funds made available by the Ministry were limited and already used up.

Chapter VI

TENTATIVE EVALUATION OF THE INSTITUTE'S WORK

Although brief assessments of the Institute's aims, strategies, organisation and activities were made at the end of the individual chapters, a tentative general evaluation of its work and effectiveness is set out below. It has several limitations.

The first problem is the time scale. The Institute has only been in existence since the autumn of 1967 and it is still in the development phase. Although a number of projects have been put in hand and some already completed and reported on, representative working results are still strictly limited. Particularly in the years immediately following its foundation, extensive ad hoc tasks had to be carried out for the Ministry of Education and Culture (e.g. in committees) with very limited staff and material resources. The Institute's staff all feel that this left too little time for central projects, such as regional educational research. Estimates made in the Institute suggest that in general less than 50 per cent of its capacity has been available for long term projects. This being so, it is clearly impossible to assess the activities of the State Institute for Educational Research and Planning definitively after so short a time.

The definition of criteria is a second problem. By what criteria should the Institute's work be judged? Should narrow scientific, i.e. theoretical and methodological standards be applied? Should the assessment therefore be based on the scientific publications issued by the Institute and individual members of its staff? (listed in Appendix). Is the relevance - determined by the Ministry of Education and Culture - of the results for education policy decisions the decisive criterion or are changes in the schools themselves brought about by the Institute's activities and assessed by teachers, parents or pupils the main factor? The Institute's staff themselves look upon the extent to which they are able to influence, i.e. in their opinion to optimise, education policy decisions in Bavaria by their findings as the most important criterion in any assessment of their work. Results are good if they prove effective for educational planning purposes.

A third problem is to decide who should make the assessment - the Institute's own staff, the Ministry of Education and Culture or the teachers who are affected? Is the opinion of the authors of this report anything more than a subjective impression? The list of difficulties in evaluating the Institute's work could be extended at will. This cannot therefore be anything more than a tentative assessment of the Institute's work to date; our conclusions cannot be representative as they are bound to fall short of objectivity, reliability and validity.

6.1. Evaluation on the Basis of Different Assessment Criteria

In order to avoid constant changes in our reference co-ordinates, we have based this section entirely on opinions expressed by members of the Institute's staff. This is therefore a 'self-evaluation' of the Institute's aims, conditions and forms of work and effectiveness. Interviews and evaluation questionnaires provided the necessary empirical material.

a) Since the Institute's declared aim is to provide - through the results of its studies - practical assistance to the Ministry of Education and Culture and school administrations in reaching their decisions, a given research project should only be undertaken if it is of immediate relevance to education policy or likely to become relevant in the near future. Time-consuming preliminary studies, fundamental research and the development of new methods etc. must therefore not be allowed to delay the completion of specific projects.

The 9 scientific staff members whom we consulted all agreed with this. The strategy it reflects was felt to be both appropriate and effective; only one person stated that it was effective but inappropriate.

b) The methodological efficiency of the scientific staff, i.e. their ability to plan empirical studies independently, to carry these studies out successfully and analyse and interpret the data statistically, was considered 'good' by 6 observers, 'satisfactory' by 2 and 'unsatisfactory' by one.

c) 6 of the 9 staff members interviewed believe that too little time is allowed for the preparation and discussion of projects, that the Institute's efficiency is impaired by the fact that its research budget is too small and that greater importance should be attached to primary surveys in future studies.

d) Co-operation between members of the Institute's staff is defined as 'very good' by 2 observers, 'good' by 2, 'satisfactory' by 3 and 'adequate' by 2.

e) 6 staff members are satisfied with the way in which decisions are reached; 3 criticise the present procedure.

f) The Institute's flexibility, i.e. its willingness and ability to correct its aims, research strategy, internal organisation etc., is defined as 'very good' by 2 observers, 'good' by 3, 'satisfactory' by 3 and 'adequate' by one.

g) The overall effectiveness of the Institute's educational research and planning activity is considered 'good' by 2 staff members, 'satisfactory' by 4 and 'just adequate' by 3.

In short, this self-evaluation leaves us with the impression that most of the scientific staff - even if they express occasional criticisms - are on the whole well-satisfied with the aims, conditions and forms of work and efficiency of the State Institute for Educational Research and Planning.

6.2. Evaluation by Different Groups of Observers

Here we confine ourselves to judgments by persons who do not belong to the Institute.

Since we could only interview a relatively small sample of Ministry officials, association representatives and teachers, the assessments represent a set of subjective impressions rather than a representative, external evaluation. It is quite clear that the persons whom we interviewed did not assess the Institute as a whole and the effectiveness of its work; their observations are based on the expectations and experience specific to the particular group to which they belong.

It is not surprising that the Ministry of Education and Culture views the Institute's work in an almost entirely positive light. A minor difference of opinion in connection with the publication of the report by Schorb and Schmidbauer on research into regional differences in the transfer rates to general secondary schools increased rather than diminished the willingness to co-operate.

The similarity of ideas on education policy held by the Ministry of Education and Culture and the Institute, the continuous co-ordination of their work and the more or less institutionalised 'compulsion' to co-operate mean that the Ministry identifies itself in a large measure with the aims, strategies, forms of organisation, staff decisions and individual activities of the Institute. When the possibility of a conflict arises, as it did on the subject of the orientation stage, both partners adopt a very reserved attitude to the problem.

This impression does not mean that the Institute must always fit in with ministerial expectations and wishes; independent initiatives and objective scientific statements are appreciated by the Ministry unless they completely contradict the intentions of Bavarian education policy. Repeated emphasis is therefore placed on the need for joint clarification of aims and plans, on the pursuit of objectives which are feasible in the context of education policy and on the advantages of trusting but not necessarily tension-free co-operation between the politicians and scientists. Applying these criteria,which are accepted by both sides, the Ministry considers that the Institute's work has been effective.

The attitudes of associations and professional groups with an immediate interest in education policy towards the Institute are not so consistent. The creation of an Institute of this kind is generally welcomed, its objectives (in particular the strong emphasis on regional aspects) accepted in large measure and the work it has done considered in an altogether positive light. Reservations are made when specific groups feel that the Institute should have paid greater attention to their own problems. Massive criticism is only voiced when particular group interests might be adversely affected by the Institute's work (see Chapter 5: Activities). Understandably, all the persons representing particular interests whom we consulted stressed that a balanced assessment of the Institute's work cannot be made so soon after its foundation. There is also a widespread lack of accurate information on individual research projects.

The teachers affected by school experiments were particularly critical of the Institute's activity. They too stressed the need for an Institute of this kind in the context of education policy but they felt that proposals, plans and school experiments should be based on practical conditions in the schools and provide constant advice, guidance and support for the schools and teachers affected. In this respect many teachers feel that they have been left to their own devices by the Institute, while acknowledging the good personal contacts which exist with individual members of the Institute's staff and their readiness to be of help. Clearly there is a conflict here between the scope of projects and their implications for the schools on the one hand and the Institute's working capacity on the other.

6.3. Overall Evaluation

When we consider the differing evaluation criteria and reference groups and the homogeneity and range of variation of the assessments, two elements appear important for an overall evaluation; they are of general significance to the whole of the present education policy debate and to the future development of educational planning: we refer to the relationship between educational research and policy and the relationship between educational research and practical education. Several attempts have been made to illustrate these relationships by drawing an analogy with an isosceles triangle or, in a more differentiated form, as a system of interdependent values, but no conclusive results have yet been reached. Through its basic approach and daily activity the State Institute for Educational Research and Planning tries to balance out the stresses inherent in these relationships. By narrowing the conceptual and institutional gap between applied research and policy it has proved possible to break down existing barriers to understanding, improve the dialogue between the partners and influence education policy decisions by scientific findings. The Institute has already done a great deal to reduce the prejudices of scientists, politicians and administrative officials against each other.

In this area, advantages gained in one direction clearly entail disadvantages in another; the basic problem of the Institute is therefore that of its relationship with fundamental research and practical work in the schools.

The attitude of the Institute's staff to research is almost entirely application-oriented. The low degree of usefulness and frequent lack of relevance of the results of fundamental research for practical changes in the school system have been rightly emphasised on many occasions. The differences between the work of the Bavarian Institute and that of the Max-Planck Institute for Educational Research has been intentionally highlighted. (The Max-Planck Institute for Educational Research in Berlin is one of the many research institutes of the Max-Planck Gesellschaft, a foundation which sponsors the advancement of research and science. This institute is funded jointly by the Max-Planck Gesellschaft, the Federal Government and the states, and the Institute's focus is on basic research.) This widely held attitude does, however, lead to the risk not only of rejecting the possibility of conducting fundamental research in the Institute itself but also of underestimating the value of all such research (which may well be of practical relevance) and making insufficient use of the theoretical and methodological possibilities developed in this context in the Institute's own application-centred projects.

Similar difficulties of interpretation also apply to the Institute's relationship with the schools. Admittedly it always tries to base its work on the real situation in the schools which it hopes to change; but the work of implementation and information which this entails place an excessive strain on the Institute's staff capacity. There can be no doubt that the Institute's staff are making concerted efforts to overcome these difficulties which they clearly recognise.

The Institute's functions may - as is presumably the intention - be defined very narrowly; for example they could be confined to the study of regional educational conditions and the need to make allowance for them in medium-term educational planning. An attempt could no doubt also be made at a more detailed study by qualified experts of the whole problem of the relationship between science and politics and between the administration and schools. But conflicts would certainly arise if a basic decision were taken in favour of the first option, and the second possibility pursued in the Institute's daily work.

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Part Seven

RESEARCH FOR BETTER SCHOOLS, INC. (RBS), UNITED STATES

by

Leon OVSIEW, Professor of Educational
Administration at Temple University

April 1971

SUMMARY

By 1958, the "ugly, stagnating" things about the public schools in Philadelphia had become impossible to ignore. Not merely because the burden on the schools increased as every social problem demanded an educational answer, nor because the democratic promise to treat each child as unique and valuable was failing in the face of the force of numbers - but most of all because the world outside the school was going mad with change.

During the forties and fifties the educational establishment in North America realised with growing horror that money - more and more of it - was not the answer to the problems - that they were in fact facing a poverty of new ideas.

The National Defense Education Act of 1958 was a traditional, money-centred response to the crisis - but it also contained the basis for broad-based federal interventions in the educational system at all levels. At more or less the same time came the 'curriculum revolution" whose implications, the author believes, are still being misread. These two developments set the stage for the Elementary and Secondary Education Act of 1965 - the second most radical educational legislation in American history, the first being the institutionalisation of free compulsory mass education.

This new act, amongst its many provisions, funded an entirely new type of institution, called the Regional Educational Research Laboratory, to provide a link between the research and development centres and school districts. The new institution was intended to develop, disseminate and diffuse research and research applications.

Research for Better Schools, Inc. was one such institution. It worked out for itself a region including a 15-county section of south eastern Pennsylvania, the southern half of New Jersey and all of Delaware. The initiating group - from universities and colleges, a state department or two, a handful of county superintendents and representatives of the Philadelphia school district - discovered that the application period for funds under the new scheme was only two weeks away when they heard of it, so a group of volunteers wrote a prospectus for RBS Inc. in ten days. Four months later, it was funded for an initial 75-day planning period. By June 1966 it was an operating organisation.

This study describes the development of RBS since then. It describes in some detail its management, and the three programmes with which it has made its name. They are: the Individualizing Learning programme (the best known); the Administering for Change programme; and the Humanising Learning programme, perhaps the most exciting but still only half way to completion according to its plan.

None of the nine programmes initially submitted by RBS survives in its original form, but all are in one way or another moulded into its present three-programme format.

In a fascinating interpretation, following the descriptive and analytical case study, the author looks at the slow realisation that in education there had to be a change in the process of change. He sees the core-problem of educational change now as the attempt to build up an educational system that has its change-capability built in. Along the way, he suggests that the fashionable criticism of teachers and administrators as being reluctant to change can be looked at another way - that they have in fact been shrewd and forward-looking in being slow to adopt many of the new educational ideas and products that have been developed over the years; because the hindsight view "confirms their judgement that many, probably most, of the offered innovations were imperfect and ineffectual".

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Chapter I

HISTORY

In Philadelphia a few years ago, rousing themselves from a long apathy, citizens began to complain about the many signs of declining quality in their public schools. To these complaints the board president always responded by saying, "Our schools are second to none." Knowing him to be choleric, a forebearing public indulged the president for a time. But as the evidence of the schools' decline became increasingly clear, the citizens finally forced through a new law as a means of changing the entire school board. Meanwhile, a group of outside consultants had been commissioned to study the Philadelphia school system. But the irony was that the deposed school board president had probably not been bearing false witness. Deficient as the Philadelphia schools were, there were all sorts of reasons to believe that the schools in other big cities were no better.

Throughout the 1950s there had been a confusing conflict about the quality of public schools. It was that time in the United States when Senator Joseph McCarthy was riding high. A group of critics emerged who charged educational failure and proclaimed its cure all in one. The failure, they said, was that children were not learning the fundamentals. The recommended cure was for the schools to give up all the new educational ideas which suspect educationists had foisted on them and to go back to a tough regimen of reading, writing and arithmetic, holding each child to performance standards as the price of being allowed to continue in school.

For a while this corps of axe-grinders 1) had confused the issue. Years before there had been other critics who were more quietly worried about the widening inequalities of educational opportunities, about the apparently precipitous decline in the quality of education in American cities, about the almost total absence of sophisticated educational research, about tens of thousands of school districts so small they could not be viable educational enterprises. And more. But these critics were hard to hear in all the confusion of post World War II United States. They did not charge Communist plots nor personal scandals. They were not heralded by public relations men. They were men and women of good will who rejected both revolution and over-simplification. They were critics from inside the educational establishment.

By 1958 the ugly, stagnating things about the public schools had become impossible to ignore. Not, of course, because USSR (in 1957) seemed to have a better space technology than the USA. The things that were wrong were much older and more important than space technology.

Of course there were reasons why. The burdens the schools were being asked to carry were increasing, for every social problem seemed to require an educational solution. The historic democratic promise to treat each child as an individual of worth and dignity, each unique, was falling away to the force of numbers. Most of all the world outside the schools was going mad with change, only a little of it, apparently, for the better. Urban poverty was increasing while the country was becoming more affluent, life styles and values were turning topsy-turvy, knowledge and technique 2) were exploding. Brown won against Topeka in the Supreme Court, and Congress, in confusion and guilt, did something about outlawing civil injustice. Public expectations from education as the way to a better life were rising on a floodtide while enrolments were increasing fast. And while all this and more was going on, the shortage of educational funding which had gone from chronic to critical showed no sign of reform; indeed, inflation was rife. (Ironically, by one of those paradoxes that is not so strange in matters of taxation, Americans had come to believe that they were funding the schools handsomely and had, accordingly, a right to expect handsome returns. The educators' efforts to show that the truth was the reverse were wholly unpersuasive, because by a perverse strategy that often appeals to public officials, they were asking for more money by claiming great success with what they had.)

In short, the adaptation demands upon the schools were not only unprecedented in scope and severity, but cruelly bewildering to an art of administration that had only been weaned long enough to begin to wonder how it would be if it were a science. Bewildered as they were, school administrators did what they had always done in adversity: they redoubled their pleas for money. 3)

Money! There was a time when it seemed the specific therapy for every educational ailment. "Wealth is not without its advantages," John Kenneth Galbraith said, "and the case to the contrary, although it has often been made has never proved widely persuasive." 4) But what if the advantages money promises really do not materialise? The mounting horror in the American educational establishment of the post-war forties and fifties was that money no longer availed much, for there was a poverty of new ideas; solid and fundamental educational inventions were nowhere to be bought. It was as though the famed inventive stream which Americans thought was their birthright, and which had always flowed so deep and swift, was drying up.

The shock of recognition was hard, but it had the advantage of opening the eyes of some powerful people who had not before been used to thinking about education as an urgent national problem. The anomaly that was local organisation for education and national policy for education had, somehow, to be faced. 5)

There had, of course, been federal money for local school districts from the time before the United States was a nation. But general aid by formula from the federal government had never been legitimised because the concept had always been opposed on principle; to many it appeared to be inconsistent with states' rights and local home rule for education. True, the professional educational establishment had lobbied for general aid from federal sources since about 1920, but only non-controversial specific (categorical) aid had ever been enacted: lunches, payment in lieu of taxes on federal installations, vocational education, and the like.

The National Defense Education Act

In 1958 Congress faced the school money problem with a sense of crisis. Not knowing what else to do, Congress knew that, at the least, more money had to be applied to school deficiencies. That much seemed in 1958 to be unarguable. Congress complicated the grant of new federal money by elaborating a series of categorical grants to support a series of selected educational programmes, all chosen to meet the threat to national defence which educational inadequacies in these areas allegedly posed. Thus, the National Defense Education Act of 1958.

Invoking the defence need for educational funding should not confuse anyone. It has always been easier to raise money in Congress for defence than for any other purpose. However tenuous, claiming defence need was the surest way to provide federal funds for education in 1958.

But it was more than money that Congress legislated in NDEA (a glossary of acronyms is included in Appendix III). The Act secured a broad-based federal intervention in education of all kinds at all levels.

For almost four decades before 1958 a conflict had been waged in Washington between the education establishment and the political establishment not only over the amount of federal aid to public schools, but over the issue of general rather than categorical aid. Educators wanted general aid, some format by which Congress would appropriate unrestricted funds for distribution to local school districts. Their claims were that such general aid conformed to the political principles of educational home rule and the commonsense principle that local populations knew their own needs and capabilities best. 6) Congress, though always claiming to honour the principle of home rule, was insisting that it also was bound to assess national needs and to be responsible for the national interest. On this point there was precedent and NDEA followed it.

The remarkable thing about NDEA was how little opposition the Bill actually stirred when it was passed. It was almost as if all those who had been in conflict were glad to resolve it, no matter how. NDEA was categorical aid, which despite a pro forma disclaimer, did intervene in what were usually considered to be the educational prerogatives of local districts and the states to define their own educational priorities. But it was important new federal money for education. The new money was rationalised as a victory by the education establishment who called it "a foot in the door" and claimed that if enough categories of education were supported it was really tantamount to general aid. That it was also a foot in the door for a kind of federal control was minimised, in part by the argument that local districts did not really have to accept the money. Though the bill gave money to parochial and private schools, the former bitter arguments over the separation of church and state - a Constitutional principle of almost holy status - gave way before the legal fiction that it was children, not schools, who were being helped, and that it was consistent under the welfare clause of the Constitution to aid children.

One would need to appreciate how long and hard had been the educators' defence of general aid, the untouchable status of home role and the separation of church and state to understand how amazing was their easy acceptance of defeat on all these issues. Some might say that, like Esau, they were unable to resist the Congressional pottage. But the likelier explanation is that their schools were in so much trouble they were glad that Congress was willing to take some of the heat. But there was more change to come.

The Curriculum Revolution

There was also the "curriculum revolution", an event of gargantuan proportions in the history of American education. But it came so quietly and so logically that more than a decade later its implications are still being misread. Until Max Beberman in Math and Jerrold Zacharias in Physics did their work, curriculum had been made in five ways in American schools. One, of course, was the textbook, which was commonly used as a course of study. The second, growing vastly in popularity, was the curriculum committee, composed of teachers and administrators and sometimes even a few laymen. The third was the periodic philosophical formulations about curriculum which came from a number of educational commissions. (Actually, their output was never curriculum as such, but rather "guidelines", "principles", "philosophies" from which curriculum "should be constructed.) The fourth, and little used, method was the course of study devised and then suggested or mandated by a state department. A fifth way, an ad hoc non-curriculum controlled by the teacher, was widespread.

By 1957, when the Physical Sciences Study Committee (PSSC) began its work, it was obvious to most qualified observers that curriculum-making in American public schools was in extremis. The horror which Zacharias and his colleagues felt when they read the extant Physics tests could have been matched by any group of scholars in any field, had they troubled themselves to read the relevant texts. And the local "curriculum committee", which confused scholarly discipline with democratic participation, was a snickered joke among educators, for teachers were not curriculum scholars, and they could do little more than scissor and paste amalgams of similarly produced curricula from other school districts. The prestigious commissions helped very little; they did not make curricula. And the states did so little in curriculum that even were their work good it would have made no discernible difference. If ever there were a vacuum in American education, it was in curriculum construction in the mid-1900s.

The vacuum begun in the late 'fifties to be filled. Scores of new curricula in virtually every field of study were produced in only a few years by subject field scholars rather than "educationists." All the way from all sorts of "new Math" curricula to economics for first graders were produced outside school systems and funded by hundreds of millions of dollars of foundation and federal money. More importantly, these curricula were being adopted by school systems at unprecedented diffusion rates.

Two revolutionary things had happened quickly in American education through the new curricula. The quick adoption by school districts was the certain proof, if one were still needed, that the school districts were desperate for any new educational product that appeared to have fundamental substantive value. All the old truths about the rate of educational change, the so-called "fifty-year lag", for example, applied when the public schools were relatively safe and unthreatened. 7, But they no longer were and some change was being avidly sought, as avidly as the status quo used to be defended. But there was more to it than that and it struck to the heart of the public school philosophy.

One has to think about how much what Americans call "home rule for education" has always signified. It was, foremost, the bastion against political tyranny, the embodiment of the principle of political democracy which insisted that the power to control education had always to be decentralised so that men's minds might always be free. And they were willing to pay local taxes for schools, as long as the schools were theirs.

In consideration of home rule, a national system of public education has never been achieved nor even sought, and a myth of local self-sufficiency grew up in local school districts, fed not only by concepts of local independence but by the notion that children differed so in ability and need from place to place that only local districts could know them well enough to suit them curricularly.

But the new curriculum makers worked from a totally different assumption: that individual differences were within a standard range so that a curriculum could be built anywhere to suit all or part of that range. Which is to say that the differences among school districts were irrelevant; only the differences among children mattered in curriculum construction. And if that were true, it was worth spending millions of dollars, using the very finest scholars, and paying for research, field test and development to create curricula that could be used in thousands of school districts, rather than spend hundreds of dollars using teachers to make curricula to be used in one school district.

In the most direct sense, NDEA and the curriculum revolution set the stage for the concepts of the Elementary and Secondary Education Act of 1965 (ESEA), the second most radical educational legislation in American history. (The first, of course, was the institutionalisation of free, compulsory, mass education.) What was happening in those years between NDEA in 1958 and ESEA in 1965 was a maturation during which some shibboleths about public education were revealed as myths. *De facto*, the mammoth task of building a research and development network was begun. The components of the educational network were being formed, and the regional educational research laboratory concept, Title IV of ESEA, was its major part. 8)

Space does not here allow the recounting of the whole story of ESEA, though it merits reading for anyone who cares to know how major educational policy is made. 9)

Anyone at all alert to what was happening in American education during 1958-1965 had to be astonished at the non-controversial way in which the "national" curricula were being made and adopted. It was so contrary to the official line of the professional education association, notably the National Education Association, that there could be no doubt that at least the practitioners in the education establishment were, at length, ready to exchange a fair amount of stability for greater quality. 10)

It was during this time, too, that Congressional appropriations for educational research vastly increased. It was "co-operative" research, money being distributed for research to individual scholars who applied for support of their work, but it also served to reinforce the federal role in education.

The Elementary and Secondary Education Act

When John F. Kennedy became president in 1960, he and the Democratic Party realised that the time had never been more conducive to back initiatives in education by the federal government. It fell to Lyndon Johnson, a populist and a former school teacher, to follow through, and in 1965 ESEA was enacted. As originally drawn, the Act had five major provisions. Titles II and V were categorical, designed to put some new money into two areas of obvious weakness, school libraries and state education departments' statistical services. Title I carried the bulk of the money. It was politically necessary and it was almost general aid, for it gave nearly every school district some money and the cities quite a lot of money by basing the funding allotments on a "poverty formula", which simply meant that poorer districts were favoured.

All the money in the Act was to be "new" money, it being required that no local and state funds be displaced by ESEA money. The big money, Title I, was supposed to pay for venturesome new programmes to improve the schooling of "disadvantaged" children. Whether that aim was accomplished in any reasonable way is open to some doubt, but there is no doubt that it helped to reinforce a climate in favour of educational change. It were as though the federal government were directing the school districts to change, a position never before taken. Title III also reinforced the new psychology of change. Title III gave grants to school districts, combinations of school districts, and other educational consortia which had a new educational programme or project it wanted to try. Title III was risk money, the kind school districts did not have, and it could be used only for innovation. 11)

Title IV was the jewel of the piece. It funded a wholly new institution, and together with the Research and Development Centres (R & D Centres) which had quietly been instituted in 1964, put the federal government in an enterprise it had never before been bold enough to attempt: the invention and development of new educational practice.

The R & D Centres (there were 10 of them by 1966) were originally conceived as a means of concentrating research talent and money in specific areas of basic educational research, in addition to the co-operative research project money for individual researchers. Education was now to initiate the successful experience of the hard sciences and business in which organised basic research had proved to be highly practical. Another agency to develop, disseminate and diffuse research and research applications was also necessary to emulate the hard sciences and business experience: basic plus applied research. This instrument was named the Regional Educational Research Laboratory (REL), and it was to be funded by Title IV of ESEA.

The concept of the REL was not completely clear when it was written into law, actually, but it was clear enough that there needed to be a link between the R & D Centres and school districts. As is often the case, experience with the law was intended to develop the practical means for operations.

When news of Title IV broke, there was a predictable rush of educational institutions to the federal trough; it looked to them like just another federal aid subvention. But it quickly became obvious that Title IV bureaucrats were going to be tough-minded and that universities and school districts were not going to be funded for their own purposes.

All sorts of new ideas were being lofted by the United States Office of Education (OE) for the laboratories. For one thing, only consortia were going to be funded, and then only when they were incorporated in some legal non-profitmaking entity. To such consortia OE made it known that they expected non-school agencies to be invited, such as business, radio and television companies, newspapers and the like. OE actually expected grassroots leadership to develop wholly new and viable corporate structures to whom money could be given! Nothing like that had ever happened in American education; it sounded a little mad. Not only that, the organisations were to be regional - of more than one state - but OE officials stubbornly refused to define the regions. "Work it out yourselves", was their message.

Research for Better Schools, Inc.

The region which Research for Better Schools, Incorporated marked out in its prospectus included a 15-county section of southeastern Pennsylvania, the southern half of New Jersey and all of Delaware. The area had 616 operating public school districts with 1,425,000 students. There were also 465,000 parochial and private school students. It is safe to say that none of these school organisations had ever thought seriously of the possibility of co-operating with other school organisations for research and development purposes. Nor did they do so in this instance. They were merely in a geographic region for Title IV purposes; they were becoming a part of an act of legislation of which they were hardly aware. A group of initiators, mostly universities and colleges, a state department or two, a handful of county superintendents and the Philadelphia School District, put them together on paper. The school organisations with nearly 2 million students were, as yet, an unprotesting and unknowing constituency for whom RBS would work.

Had these school organisations ever thought of working together for research and development a fee of about $0.65 per pupil, kindergarten to grade 12, would have raised as much money as OE's first year's funding of RBS. But of that there was no chance. Only a federal intervention and federal money could have produced RBS or anything like it, even though it could not have been just a matter of money. Those who wanted a Title IV laboratory held no mandate from a majority of the region's schools. Their initiative was a direct response to the federal opportunity.

Even so, there was an element of chance in the success of the venture, for the initiating group, having been meeting intermittently for several months, discovered the OE application deadline when it was only two weeks away. A small group of volunteers, however, wrote the prospectus in ten days. Chance and stubborn ego: those who volunteered had to beat off a strong minority of the group who said the job could not be done in time and that an inferior application would jeopardise the future. During the ten days, the group incorporated itself, and a new legal entity was created, as was required by OE guidelines.

RBS was funded, some four months after filing its prospectus, for a 75-day planning period. The grant from OE was $76,810, but RBS spent $10,039 less than that.

There were now five major tasks to be accomplished before RBS could become operational:

1. A form of government for the laboratory had to be devised. A board representative of the region - representative not only of its educational, but other enterprises as well - had to be created by means that would be reasonable, feasible and effective in attracting high-calibre membership. And, of course, professional staff organisation had to be structured.
2. Support had to be gained from the region's enterprises. State departments, major business and industry, key public school districts and county offices, universities and colleges, private and parochial schools - as many as possible of these had to be canvassed and recruited as friends of the RBS venture. At the same time, RBS could not allow itself to be captured by any segment of its patrons. 12)
3. A study of the educational needs of the region had to be made and presented in writing as a basic means of justifying the laboratory's programme planning to OE.
4. A substantive laboratory programme had to be presented in detail, together with a budget request.
5. An executive director and other key personnel had to be hired, office space rented and opened for business.

RBS was an operating organisation and ready to use the funds it received on June 16, 1966.

Four men carried the main burdens during the planning period, with the part-time help of about ten others. Many others were consulted. It was a frenzied time, exciting in a new way, for none who was involved had ever before had the opportunity to start a new educational organisation. Nor had they ever done very much educational planning. Now they were learning together the first law of the laboratory experience: survival depends on planning competency.

All five planning tasks were difficult, especially as they were constrained by time, but the most difficult was the detailed working out and presentation of programmes. There were more than a few reasons why:

> The educational needs of the region were so many and so complex that an inventory of them only complicated the choice of programme; there was no area of education which did not need innovative improvement.
>
> To identify needs and even to be able to select which of them merited first-order attention did not seem to avail much, if there were no means for meeting them. Early on, it became manifest that the laboratory had a choice to make. Should it, say, identify an unarguable educational need, such as "inculcating humane values" and set out de novo to invent a new way to meet it; or should it find a need, also unarguable, to which an existing innovation already addressed itself? The OE gave no guidance on the question, but for its major programme the RBS planners chose the second alternative. 13)
>
> It soon became apparent that there was a critical relationship between a programme and something which the OE Division of Educational Laboratories (DEL) called a "mission". Until Title IV, researchers had asked for OE money to support research projects. Now there was a concept of "mission" on which the Office was insisting, though without being altogether clear about it. The dictionary revealed many meanings for "mission", but apparently what DEL had in mind was a "major assigned or self-imposed duty or task". Implications began to emerge. By a happy coincidence, the prospectus, before the "mission" notion was mentioned, had, without ever using the word, stated its mission. It was in question form: "How can educational institutions produce and offer the scope, sequence and variety of

instructional experiences which are truly suitable to the total range of abilities and requirements of students?" A mission was goal-structure. It gave the programme a purpose. A purpose, a context and a means of evaluation.

Feasibility - practicability - was a troublesome matter. Suppose that a mission and a programme could be identified and devised, could it be implemented? Could the laboratory muster the resources necessary for field testing and dissemination so as to achieve its goals? 14) One problem was, in fact, getting used to the idea that laboratory money was risk capital. Educators were simply unaccustomed to the idea that they could be allowed to spend money on programmes that could readily fail. (Ignoring the obvious irony that schools regularly spend money on unproved programmes, some kinds of entrepreneurial behaviour come hard to educators.) But the feasibility question was more than risking money. To the incipient laboratory the big outside world of school districts looked like a lot of castles defended by moats, manned battlements and, if these were breached, by impenetrable indifference. It was hard to be sanguine about getting through. The only rational way out of the feasibility dilemma was to learn risk-taking behaviour, and to believe that the trouble schools were in would be enough to erode their defences against change.

Everybody has done some planning; it is impossible for anyone not to look ahead, somehow. But no one could describe the art of educational planning as being far advanced in 1966. Systems Analysis, Planning, Programming Budgeting System (PPBS), critical path, Programme Evaluation Review Technique (PERT) were in their esoteric beginnings, and although they were used a little by the RBS planners, the method was still mostly intuitive. But RBS already understood the first law of laboratories (survival depends upon planning competency), so it tried hard. The RBS planners were doing more than problem solving: they were delineating tasks, allocating resources and doing so under the strict discipline of achieving stated objectives. But actually, looking back, it was a job to be proud of. If the process were primitive, it seemed nevertheless to be reasonably effective. Perhaps the briefest way to describe how the process worked is to tell how RBS came to choose Individually Prescribed Instruction (IPI) as its first programme.

Days had been spent in nominating, discussing and rejecting many programme ideas. The debate had been open and tough and no idea had been able to survive. IPI was suggested, though no one in the group knew more than a little about it. It was being developed at the University of Pittsburgh's Learning Research and Development Center (LRDC), an OE-funded research agency. The invention purported to be a promising means of individualising instruction. Enthusiasm among the planners was at first more than a little tempered by recalling how often in the past the false claim for individualising instruction had been made. Still, it was worth examining. If IPI were any good at all, there was no doubt that it was in line with the RBS mission, and that was important. There was, also, potentially, a nice fit between a centre and a laboratory, between basic and applied research.

IPI was being tested in an elementary school near Pittsburgh, and could be seen in operation. Visits were made. LRDC staff were brought to Philadelphia to answer the questions of the planners. Whatever there was in writing about IPI was read. It all looked and sounded good, but the RBS commitment was deferred. More visits to Oakleaf, the school where IPI was being tested, were made, this time including some members of the Board of Directors.

Some facts began to emerge. IPI was no off-the-top-of-the-head idea; it was a product. 15) It had been born of programme instruction theory and experience, but it had been developed well beyond the guideline stage into an instructional programme and strategy. Already curricular materials for elementary arithmetic, science and reading existed and were being used. The instructional strategy used the teacher as "observer and guide", 16) a basic change from the ordinary strategy of teacher as lecturer and oracle. Preliminary evaluations were encouraging, and the promise seemed great. Besides, the product was incomplete and too expensive; there would be plenty besides dissemination for RBS to do.

It sounds so easy in the telling, but it took time, investigation and debate to come to these perceptions and judgments. It took a planning atmosphere that allowed for the full use of the advantages of conflict. The account minimises, in the interests of brevity and cogency, the oppositional argument, but it was strong, stressing the risk of so major a venture. The conflict resolution was not imposed; it probably could not have been. 17) It came by persuasion. The planned RBS strategy for implementing the programme could now be stated, the criteria for its selection could be written, and IPI became the first RBS programme adopted by the board.

The problem of relating RBS to its designated, but still largely apathetic, constituency of the school systems remained. What communication there was from them stressed their need for immediate help.

They perceived RBS, if they perceived it at all, as a new service agency which, if it could not dispense money directly, could at least use its federal money to wrestle with some of their burdens. The "service now" cry had to be ignored by RBS, despite some well-meant advice to "do a little for public relations". It would be madness, the planners knew, to try to provide service for almost two million children in all those school districts. Gratifications had to be deferred if anything worthwhile were to be achieved. Still, it was understandable that superintendents and college and university administrators would want some money or some help, and not getting either would be inclined to consign RBS to some limbo.

In this atmosphere, RBS scheduled - it had to - a meeting of its constituency and used the occasion to explain what RBS was and how it might work. Few friends were made; the truth is that the effect was nearly disastrous. Happily, what might have become opposition slid back into apathy, which, for the time being, was the best condition the constituency could be in, as matters stood.

Meanwhile, [illegible] Washington, the Division of Education Laboratories which [illegible]sible in the Office of Education for administering Title IV, [illegible], was having its own developmental problems.[18] It was all new to them, too.

The REL was a good idea, that seemed sure. But like any idea, its usefulness had to be developed. In that job DEL was a contributing partner with the laboratories themselves. Several events occurred fortunately to favour the work of DEL.

One was that the DEL staff was very young, and not much encumbered by experience with educational organisations. There is no point, of course, in denigrating the worth of experience, but there is no use, either, in underestimating the advantages of zeal, intelligence and a fresh outlook on old problems. It might read better if it were possible to claim that insightful planning by someone high in OE made it happen that way, but the fact is that mostly the youthful intelligence and zeal of the DEL staff was the fortune of circumstance. It happened because when the hiring was being done between July of 1965 and the following February, it was expected that the staff would mostly handle information requests and process papers, in other words that they would merely provide support services. The work of making judgments about the prospectuses coming from applicant groups was to be done by an advisory committee of outside consultants - primarily university faculty members - retained by OE.

Then it happened that a few of the older (over 35) OE staff left DEL for other positions, just at a time when an Executive Order "froze" personnel, which had the effect of limiting the means for replacing staff at the higher pay levels. Until well into 1969, the job freeze kept the DEL staff pretty much as it was, only a few who left being replaced.

The support function of the DEL staff, predictably, began rather quickly to enlarge after the laboratories were funded. Inevitably, the effects of DEL staff thinking exerted increasing influence, in part because in a new programme hundreds of judgments and decisions have to be made just to get the enterprise going, and in part because the staff was demonstrating, on the whole, good sense and helpful spirit. For example, anyone who was close to RBS in the forming days of 1966 had to be impressed with Richard (Skip) McCann who was DEL's liaison with RBS. His help was really invaluable.

But in November of 1966, a "guerrilla" action within the Washington bureaucracy[19] dealt the fledgling Title IV enterprise what appeared, at the time, to be a devastating blow. The Secretary of the Department of Health, Education and Welfare (HEW), John Gardner, froze funding decisions for the laboratories.

The full account of that decision must await the memoirs of its prime movers, but the general nature of the event is known to have been that the Bureau of the Budget - an enormously powerful agency which had over the years arrogated policy powers - was negative towards Title IV. It was bolstered by some influential critics outside government, primarily by those who wanted educational research money distributed for projects; that is, within the established co-operative research format. OE, for reasons which are not entirely clear, maintained a passive posture toward this opposition, and the pressure upon the Secretary was consequently effective. It should be noted that a confidential 1964 White House task force report, which had recommended what came to be Title IV legislation, had envisaged the laboratories somewhat differently from the form which they took in 1966. No doubt that difference was a matter of principle which made for conflict, though the task force report, being a confidential document, was quite unknown to many people who were working in Title IV.

Gardner, displaying his customary acumen, retained the recently retired dean of the University of Chicago School of Education, Francis Chase, to study the laboratories and report his findings and recommendations. (The National Program of Educational Laboratories:

An Independent Appraisal. Francis S. Chase, U.S. Department of Health, Education and Welfare, 1968). It is probably not too much to say that Frank Chase "saved" the laboratory programme. His affirmative report was not only statesmanlike, but it was insightful and indisputably sound. The funding freeze on the laboratories was lifted.

That crisis over, DEL and the laboratories were back in an ongoing business with a future, though major problems remained, of which the most troubling were funding policy and programme review.

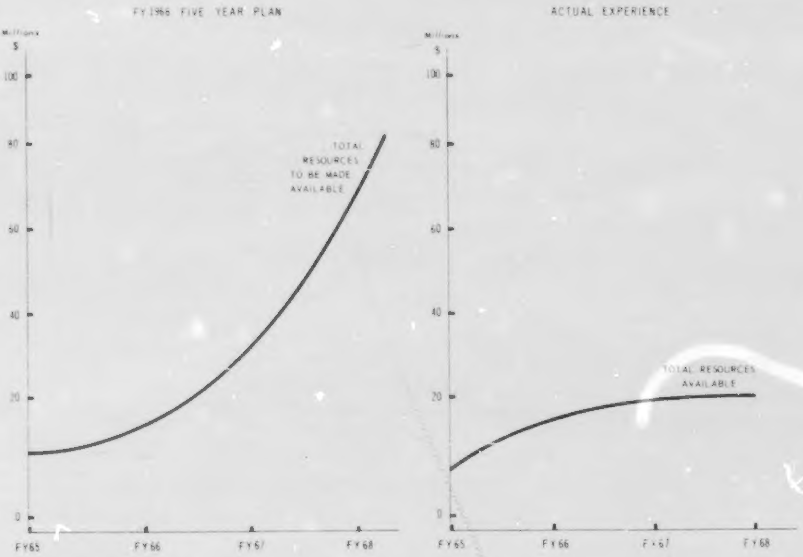
The money problem had several dimensions: the annual funding pattern, the reduction in gross appropriations for Title IV, and the DEL insistence on extensive display of programme justification in budget requests.

By Congressional requirement, the laboratories could not be funded for longer than a fiscal year (FY). The FY problem, that is, from the point of view of the laboratories and DEL, too, was that it set up an ambivalence. The laboratories were programming long-term operations (IPI, for example, was envisioned as, minimally, a five-year programme), and annual "pieces" were arbitrary. It was also true that the FY pattern confirmed the prevailing perception of the laboratories as being tentative, as having a future less than assured. Obviously, that made some kinds of problems more difficult, at least. It also had the effect of skewing the laboratories' executive workload toward getting money.

Even more serious was what happened to the total money for Title IV. The graph on the next page tells the grim story. In 1965 OE planners made their funding projections for laboratory operations to reach $100 million by FY '67, and DEL spoke to the laboratories in 1965-66 in terms of $3 to $5 million a year budgets within five years. That kind of money never materialised, as the graph shows. Neither all the reasons why the money did not become available through appropriations, nor all the effects the reduced funding had can ever be known for sure. Some of the effects may, indeed, have been good, by enforcing greater rigour of evaluation. But in the main, the effects were bad, because for the best of the laboratories the full nurture that money could have provided was missing just at the time when they needed it most.

The matter of gross appropriations for Title IV are worth some speculation. Ordinarily in new and complex ventures such as the laboratories it would be reasonable to postulate a period - perhaps a year or two, or more - for building a strong organisation, a programme and a style of working. Funds would be expected to cover

Figure 1
CASE STUDIES I



organisational risks during a "shakedown" period. By the nature of the venture, there were programme risks in each of the laboratories which implied possible costly false starts. It could be expected that of the twenty laboratories first funded, some would not succeed, whatever the measures of success were. But, if that were a reasonable expectation, it was likewise a reasonable expectation that all would be given adequate and fair opportunities to be successful. With enough money it also seemed reasonable to expect that those laboratories which made more rapid and successful beginnings would have available a funding supply which could expand as rapidly as the laboratories' ability to make effective use of additional monies. If nothing else, it certainly seemed reasonable to expect that the laboratories would not have to compete with each other for money.

Scarce money turned things around. The most traumatic consequence was that the laboratories found themselves competing with each other almost from the outset. The annual funding requests to OE were scrutinised for ways they could be reduced rather than only by how well they merited support. But they had to be: short money simply could not go all the way around. Inevitably, the laboratories making the quickest adaptations were being denied funds they could have profitably used; no one knows how much that reduced the rate of gain.

As the laboratories developed and increased their appetite for money, without being matched by a parallel increase in available sustenance, the trauma exacerbated. By 1967 (FY 68) it became necessary to consider a dire question: which was the better policy, to cut off some, the weakest, laboratories, so that the strongest could be properly sustained, or to put them all on short rations to keep them all alive, somehow? If secure, objective criteria for making weak-strong judgments had been available, the dilemma might not have been as severe as it was. But, in fact, the judgments had to be made by OE-DEL with the help of numerous consultants who had visited and evaluated the laboratories and those on the National Advisory Committee using criteria that may have been sound, but which could not be construed as unassailable. Nevertheless, the judgments had to be made because it was unthinkable for most of those who were involved - OE and consultants, both - to jeopardise the best laboratories and so jeopardise the entire Title IV venture in order to save the doubtful ones.

What has to be considered also is that the jeopardy to the total laboratory programme was real and imminent. Title IV had its enemies and detractors, some of them highly placed in Congress and others strategically placed in the bureaucracy. They were being successful, helped by certain circumstances (the Vietnam war, for example), in keeping funding low. If there were no demonstrable successes in the laboratory programme, it was apparent that repeal of Title IV or cutting its funding to zero were clearly possible. In such a setting, there seemed no way to do anything but cull what seemed the weakest so that the strongest might succeed. Today, eleven of the original twenty laboratories survive.

If the decisions to phase out some laboratories were accurate, which no one can state for certain, the total laboratory programme may well have been strengthened as a result. But there is also no doubt that two criteria which were overtly used to make the judgments rewarded some laboratories which may have been only quicker than others in coming of age. RBS certainly benefited - as it should have - because it was quick to understand the importance of strong organisation and leadership and of product-oriented programmes and had made excellent progress in both, but the laboratories which had not been so quick were just as surely penalised. The point, of course, is that another year or so, with more money, might have given the weaker laboratories the time they needed to grow strong.

One serendipitous event was, however, attributable, in part at least, to the shortage of money. For this shortage greatly strengthened DEL's resolve to enforce sophisticated planning on the laboratories, and consequently strengthened the quality of the planning which the laboratories did. Actually, there had been a clear predisposition at DEL to honour evidence of good planning from the very beginning, but that was due, then, primarily to the efforts of two young staff members who had learned in different prior experience how much the success of new organisations seemed to depend on planning competency. Only partially successful at first in making their point, and then being able to influence the laboratories' efforts more informally than formally, by the fall of 1966 they were able to bring the Associate Commissioner into full support of their position.

It was not until 1968 that HEW began to demand the kind of data-based planning - especially for budgeting - that DEL had, on its own, required two years earlier. In the funding exigency it took only the slightest insight for the laboratories to take very seriously the tough planning requirements which DEL was making upon them. As a body of documents, the programme plans and requests for funding from the laboratories to DEL may well constitute the best evidence of planning in American education. 20)

RBS survived all the early tribulations and came out of the worst of the early times sound of organisation and programme. Some believe in the idea that suffering overcome strengthens; true or not, it is undeniable that the early adversities in the REL programme taught RBS more about survival techniques in less time than it could have otherwise learned. That may have been helpful, but it was not crucial. The less romantic fact is that all the evaluations to which RBS was put by its federal funders were entirely sound. Good organisation and management, well-planned programming and hard work made the difference; without them no amount of manoeuvering would have mattered much.

Chapter II

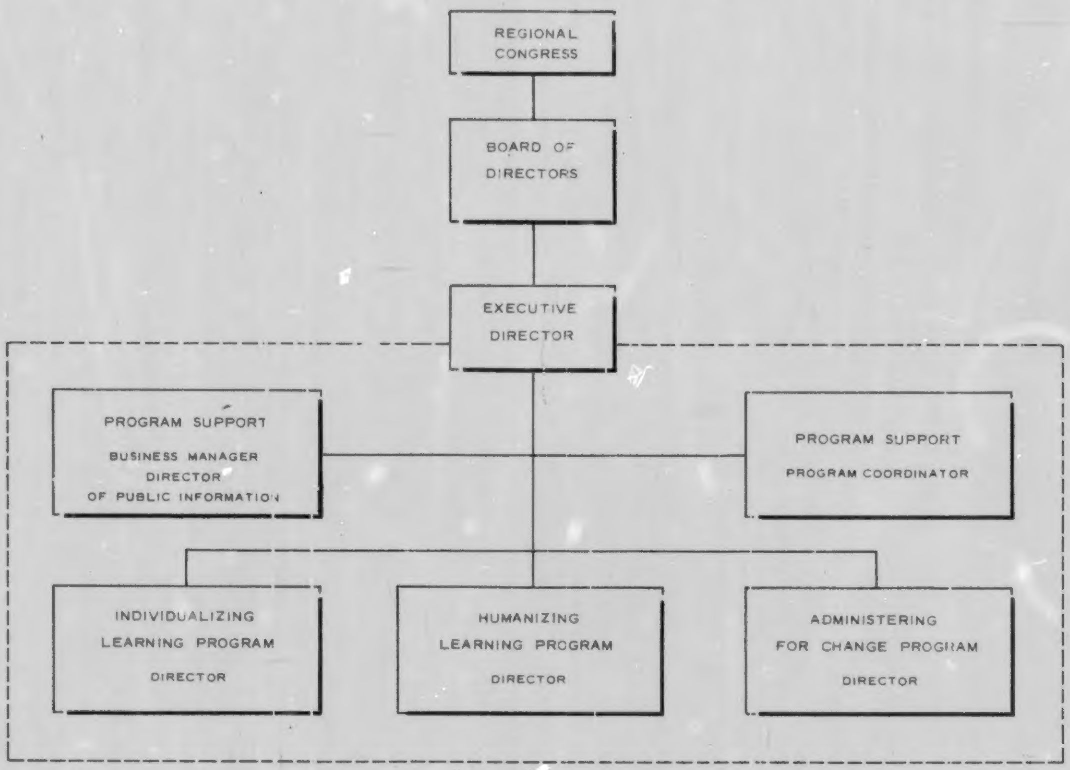
MANAGEMENT

The traditional way to describe the management of an organisation is to display its structure in a chart which purports to be a "table of organisation". Such a drawing has its uses; rather like a map which shows how places are spatially related to each other. Like a map, the T/O chart yields no understanding or feeling of ambience. For conventional organisations, experienced chart readers are often able to derive quite accurate insights about how the organisation functions. For unconventional ones, the structural chart is less helpful. RBS is an unconventional organisation in its most basic operations, but looks quite conventional in its superficials. The chart on the next page is presented out of respect for the proprieties, but with the warning that it is the merest guide to spatial locations of function.

What is apparent from the chart is that the typical authority and staff structure applies, that programme administration is decentralised and that a co-ordinating device, the cabinet, is present. The structure is time-honoured, serviceable and sturdy in respecting the dictum that "structure follows function". The most noteworthy observation to be made about it is that the structure of RBS is not an innovative one. What is unconventional and innovative is the way the organisation works. Before that can be described, some little effort must be spent setting the context; all organisations are managed in a time, a place and a prevailing social and philosophical context.

In a time in American history when almost none of man's business is without its own direct and indirect federal subsidy, it may sound strange to say that there was in 1965 very little know-how among educators about relating themselves to the federal bureaucracy. Spending grants and applying for specific aid monies were no real preparation for the kind of relationship Title IV required between laboratory and OE. One was like making a deal with an impersonal but indulgent banker, the other like getting married to a mail-order bride; one has to be wary of what one is getting into in that kind of ceremony.

A CHART OF RBS MANAGEMENT STRUCTURE (MINIMAL)


REGIONAL CONGRESS
BOARD OF DIRECTORS
EXECUTIVE DIRECTOR
PROGRAM SUPPORT
BUSINESS MANAGER
DIRECTOR OF PUBLIC INFORMATION
PROGRAM SUPPORT
PROGRAM COORDINATOR
INDIVIDUALIZING LEARNING PROGRAM
DIRECTOR
HUMANIZING LEARNING PROGRAM
DIRECTOR
ADMINISTERING FOR CHANGE PROGRAM
DIRECTOR

If the OE relationship were fraught with potential aggravation, the prospect of a non-profit corporate board drawn from the region's education, business and commercial establishments did little to calm the nerves of those who were cast as executives in the new laboratories. Of course, for anyone to leave a good position to accept an executive role in such a venture as the regional educational laboratory took, besides a willingness to assume risks and a certain bold self-confidence, some burning vision, some commitment to achieve in this new way what was unlikely to be achieved any other way. The job looked for a man who wanted to make his mark and who was willing to suffer some rigours, if need be, to do it.

Going back to those early days of 1966 when the laboratories began funded operations, one must recall that the new institution was being forged rather than cast. There was no mould into which the laboratory was being poured, no particular model to be patterned after, no one conception to which it had to be drawn. Its shape and character had to be hammered out in the conflict and co-operation between OE and those who were the laboratories. In those days, neither had complete ideas of what the laboratory ought to be, only incomplete ones: ideas about organisation, what appropriate board function was, the criteria for good programming, perhaps. No one yet had a total picture so that he could be sure of even his own judgments about how a laboratory should be formed.

Even in those early days, OE knew better than anyone else that it was funding laboratories to develop and diffuse educational innovations rather than to do more project research or provide educational services to beleaguered educational institutions. The distinctions were by no means that clear to the laboratories, and some took an inordinate amount of time to understand the differences. Those which did quickly grasp the distinctions between products and ideas, between development, dissemination and diffusion and service got a running head start.

RBS was one of those quick ones. That is, RBS perceived that it was neither a research nor a service agency and that development and diffusion of innovative practice were its functions; the catch was that the concepts which defined its role were themselves poorly and only partially defined. Operational definitions had to await experience. What had to be learned the hard way was how much research there was in development; how much development and dissemination there were in field test, and how much research and evaluation; how much dissemination there was in diffusion; and how much recycling the process needed to be able to sustain itself. Six years later there are still some imponderables in these definitions.

RBS appeared to be fortunate in having chosen as its initial major programme one which minimised the problems of functional definition, though there was no way these could be entirely avoided. IPI was a palpable invention, a product [21] which though it needed improvement (i.e. development) was apparently on the way to being ready for diffusion, if field tests proved its worth. Many of the laboratories were not so fortunate; for one thing there were few such educational products around for them to programme, and for another, they had a lot of trouble in resisting regional pressure to provide services.

To the extent that they were at all aware of RBS (and it was fortunate then that many were not), the educators in the field wanted money from it - a commodity school districts inevitably associated with the federal government. When it was obvious that such was not to be, the demand was for service. "Do something for us now, something dramatic, and make your mark by helping us", ran their argument. "Do something, anything; at least show you're willing to try". Some laboratories found the appeal irresistible, to their sudden dismay, but RBS leadership (both Director and Board) was tough, and it resisted, with the support of OE. [22]

Importunings from the field had to be resisted. Whatever integrity the laboratories could claim, whatever worthwhile mission could be accomplished with their modest budgets, depended on using their money and talents to develop substantive inventions. There were no remedies already available to cure the ills of education; the laboratory could only promise to try to help later.

RBS began with a grant of money to pay for six months of planning, and that money was awarded on the basis of a prospectus document which was itself a plan. The six-months money allowed for time and talent to plan two things, an organisation and a programme. That it occurred that way was due to the wisdom of the Washington bureaucracy; that it has continued that way for six years is the wisdom of the laboratory leadership and the insistence of OE.

The wisdom apparently lies in recognising a basic distinction between two management principles: in established educational organisations (or in new ones formed in established moulds) the maintenance of on-going operations is the primary managerial responsibility; in new organisations whose special purpose is development of new products the primary managerial responsibility is planning, even though managing for organisational maintenance is indispensable.

OE has used from the beginning a simple device for emphasising the primacy of planning: it requires an annual document from each laboratory which displays in considerable detail its planning projection, in terms of programmes and organisation. Tied to budget requests, these documents enforced a planning discipline upon the laboratories such as, it is safe to say, no American educational organisations had ever been required to observe. Anyone who has had occasion to read these planning documents over the years must be impressed with the steady growth in planning expertise which they show. At RBS the consequence of the OE discipline, in which RBS firmly believed, has been to build an organisation in which planning is the major managerial function. Indeed, RBS has gone well beyond simply suiting OE requirements; its planning discipline is now its own.

Describing a planning way of life poses some difficulties that elude the powers of expository prose, like trying to describe a winding staircase without using one's hands. John Kenneth Galbraith[23)] defines planning as "... foreseeing the actions required between initiation of production and its completion and preparing for the accomplishment of these actions. And it consists also of foreseeing and having a design for meeting any unscheduled development, favourable or otherwise, that may occur along the way".[24)] Organisations which are reaching toward higher levels of capability are finding that stability does not lie in cleaving to sacrosanct and assumed objectives and methods, but is more likely to come when objectives and methods are continuously open to assessment and change.

Most educational organisations give the impression of living in the past, doing in the present what they have learned to do safely and comfortably. They are most content when their assumptions, values and processes are unchallenged. To keep it all calm and flowing they are willing to settle for less, to sub-optimise goals, not only to minimise risk but to optimise their contentment. When disturbed, they try to blunt the disturbance by one or another of several ploys: public relations, minor adjustment, feigning indifference or by counter attack. Their major concern is to maintain their steady state, almost no matter what.

At RBS the ambience is the opposite. The prevailing impression is of an organisation which is living in the future. Instead of optimising contentment, the people at RBS seem perversely intent upon minimising it. They continuously challenge their assumptions, values and processes. They expose their concepts to their own critical analysis almost compulsively. They display a passion for data and feedback about and interpretation of their own operations, and at the same time they gather information about the relevant outside world at a rate and in a depth that are altogether remarkable. They maintain the organisation as an organisation by careful administration, but no one believes that doing so is any kind of end in itself. RBS tries abnormally hard to keep its collective eye on the main chance; its mission.

Organisations which, like RBS, must take big risks and whose pay-offs are almost all in the future - that is, organisations which really have no past of their own nor even models to follow - must be sustained by some quality other than success or even faith. The only risks they can reduce are the risks of ignorance and misdirection. For the risks of venturing their capital of dollars and work on new and unproved products are in the nature of things, and thus inevitable. The primary effort for new and future-oriented organisations is thus to define and understand purpose, in all its dimensions. It may be that it is in fact impossible for people to sustain an intellectual effort the rewards of which are years away, unless their purposes are so clear and certain that they never fail to inspire the effort. Planning is the way such people describe, refine and exemplify their purpose.

Managing an organisation that lives or dies by the quality of its planning is a very new thing in education. There is yet no theory, even, to direct it. As RBS practices the empirical art, planning is a mode of behaviour enforced by the leadership demand that all its operations be continuously related to a purpose, that almost nothing be taken for granted or as routine; that all operations be cast according to a set of prior output specifications - usually using for display and summary a PERT chart or some variant - as the basis of their operations. Experience has shown, understandably, that such planning, particularly to the extent that it is specific and timed, will require periodic adaptation and accommodation in a number of its variables such as money, availability of staff, changes in field conditions. But at any time there is an extant, operable plan which is the framework for the workers in each programme.

But the RBS programmes are each independent of the others, even though the organisation's plans make their way through a cabinet and there is, normally, a fair amount of informal communication among all the professional staff. The heavy effort one is accustomed to seeing spent on co-ordination in most educational organisations is not observable at RBS, though. Such as there is, the Director provides when and as he thinks necessary.

There may be some loss in this, for it is apparent that there is probably some common ground among the programmes. The loss may be less, though, than the alternative loss of time and focus that more thorough, formal, inter-communication and co-ordination among the programmes would entail. Besides, there is a healthy, low-key competition among the programmes which co-ordination through routine means might well dissipate. As it stands, each programme plans independently, and each relates itself primarily to its plans and to the Director.

This strategy of operation puts a heavy burden of forbearance upon the Director, but he wants it that way, because it fits his convictions about the leadership role as it relates to managing the work of creative and talented professionals. The strategy fits the principle that for most such persons self-set goals and expectations are likely to be more demanding than any the organisation could realistically set for them. The Director must maintain a delicate balance between the independence of the people in each programme and the demands necessary to the total organisation, a balance which clearly depends in part on his organisation, personality and style as well as on the structure and strategy of RBS. Thus, the total RBS plan for the year (and longer) is written in his office, though its major components are produced for him by the programme people. He has an input and critical review function in their planning from the outset, however, and their programme statements never surprise him. The effect of this strategy is to use the plan as the management discipline, rather than the authority of the administrative hierarchy.

It is also true that in such a strategy some conflicts over priorities and resources will be encouraged rather than repressed, a managerial risk many administrators are loath to incur. But if such conflicts can be resolved at higher levels of goal and commitment for their having been fought through, as is often the case. the suboptimisation of outcomes inherent in the use of compromise and authority to avert conflict can often be avoided. No doubt such a deliberate use of conflict seems an unduly venturesome way of managing an organisation, but in an organisation whose work is done by professional people who are, in fact, quite irrepressible anyway, it may turn out to be a tactic less risky than the usual "direction from above" most organisations ordinarily use.

Regrettably, there is no good way in these few pages to display even a fair sample of an RBS planning document, the visible artifact of the planning process, but even were it possible, it is doubtful that it would be impressive for more than its coherent, detailed statements of work to be performed. Without minimising that, for it is of great value, it is not the document itself which really marks the difference between the maintenance mode of most educational organisations and the planning mode of RBS. It's a matter of how it is used.

The sine qua non of managing an organisation whose function is the development of products rather than their manufacture - or, indeed, of an organisation whose purpose is to provide services - is to be able to "direct and control" the work processes of talented and creative people whose labour defies routine. For routine is, of course, the ordinary means by which an organisation makes labour more efficient and predictable. An organisation routinizes its superficials, and so does RBS, but RBS does not believe, as most organisations do, that it can successfully regulate the work of its personnel by directives. Nor, of course, can RBS depend upon inspiration alone to get the best out of each of its seventy or more intellectuals who must often work in teams to get the job done. The resolution of such an administrative dilemma is to "manage by plan". In such a managerial strategy it is the discipline of the plan which provides the urgent spur to continuing work performance. The prime effort of the chief executive is to "direct and control" the planning process and to monitor and evaluate progress.

Of course, there is a kind of dualism about such a management strategy, if only because the day-to-day necessities of keeping accounts, paying the rent, meeting the payroll and keeping the creative comforts in order are still most effectively managed through the time-tested routines. The siren-like appeal of such apparently dependable mechanisms tempts managers to apply them more widely, to bring as much as possible of the organisation into the sphere of events that seem to take care of themselves. It is a conscious effort of conviction and will that defends the professional labour of RBS against dependence upon what is called "the bureaucratic means", the simplification and routinisation of tasks. When work-roles are fragmented, simplified and repeated by directed and established procedures so as to minimise decision making at lower levels in the organisation - the major means by which bureaucracies achieve efficiency of costs and diminish interruption of routines - a maximum effort of higher echelon management must be made in decision making and co-ordination, and thus central control is strengthened. So far, RBS has rejected these temptations in favour of greater responsibility and self-direction through the professional staff structure, obviously in the expectation that higher levels of work quality will be achieved. That it is a more demanding strategy, if only in forbearance, there is no doubt; that it is, in fact, efficient at a higher level of quality seems also to be certain.

In some other fields - the hard sciences, "think tanks", R and D divisions in industry, for example - there has been some experience in managing organisations whose main working force is (for the lack of a more precise word) intellectual; that is, workers whose primary output is conceptual. In education such organisations have been very rare. Only in some university situations has something of the sort existed. But even that analogy is less than close, because the tradition and structural patterns in the universities make the work of individuals, rather than team-work, the predominant characteristic.

At the beginning, there being no defined manpower pool from which RBS could draw its staff, the university was a source; at least faculty and graduate students had the scholarly credentials. Others were recruited and selected pragmatically: a programme director because he had experience with the programme in its original setting, a business manager because he had the requisite educational background and experience, a superintendent of schools to head a programme for which he had relevant experience. In any case, all of them had to learn a new way of working, and not the least of the adaptation was to learn to team with people who had different trainings and diverse experiences.

Initially, those who were shepherding the laboratories predicted that recruiting crack personnel would be difficult, since the laboratories could promise little job security and less status. Not only were the organisations new and untried, but they were unknown to all but a few. No doubt many desirable people did not choose to work in the laboratories for just these reasons. But the surprise has been that, on the whole, getting and keeping top-quality people has been easier than anyone expected. The reasons why must be many, though the main one has been that there is an excitement inherent in the intellectual rigours of development work. The magic of turning an idea into a usable product of great potential worth by one's creative powers is a magnetic attraction for precisely those people in whom creativity and talent are likely to be the major driving life-forces.

RBS looks for that kind of person, surely. A high level of intellectual ability, a motivated creativity, some special talent and expertise (achieved or potential) and a willingness and ability to work in a group - these are the criteria. For such people RBS is more than willing to accept idosyncracy, youth, varied backgrounds, impermanence and all of a half-dozen other characteristics as would likely disqualify them in other educational organisations.

There are some signs now that a few universities are trying to produce a new breed of researcher-developer and there may soon be a defined manpower pool available to the growing number of R and D agencies, public and private, in the US. Opportunities are opening. The pioneer group is apparently winning the gamble; security of a sort, status and fulfilment all seem on the way to becoming real.

In the process of educational change two important by-products seem to be emerging: a change in the process of change (organised invention and development) and a new work force responding to new opportunities in education.

Just how demanding is the strategy of "managing by plan", which is so suited to the new breed of worker, can be appreciated best when some of the special conditions which apply to RBS are considered:

> The nature of the RBS enterprise is such that it can have effects upon its intended clients only by the power of influence, and that only by demonstrating the nature of its inventions. The schools, its clients, are all independent and by no means can they be forced to adopt or even try out any of RBS' products. No doubt there is a kind of discipline which that fact of educational life enforces, but just how it works is conjectural. Quite likely there is in this some analogy to the natural law which Ohm discovered about the behaviour of an electrical circuit, but if there is, it has not yet been made clear. Except that it is certain that an organisation must work harder to be effective in such circumstances.
>
> For most of its young life, RBS has had to contend with erratic funding year to year, or even more frequently. How that history looks can be read from the table on the following page. For anyone who has ever experienced managerial responsibility, the funding adventures of RBS must seem Damoclean: what with freezes, short-term funding, amendments, three-level requests and annual reviews in depth, extinction must often have seemed a more likely prognosis than continuity. Again, just how that reality affected RBS management is not altogether clear. Except

Table 1. REQUESTS AND GRANTS, RBS-OB

A REVIEW OF REQUESTS AND CONTRACTUAL GRANTS

February, 1966 - March, 1970

Contract Periods	RBS Requests	Contracted Amount	Received from Government	Returned to Government	Programme Equipment Requested	Programme Equipment Approved
I. February 15 to June 15, 1966	$ 76,809*	$ 96,753 (incl. amendments)	$ 76,809	$ 10,038	$ - 0 -	$ - 0 -
Contract amended						
75-day contract						
30-day amendment						
15-day authorisation						
II. June 1 -November 30, 1966	1,282,523*	406,447	406,447	- 0 -	60,000	60,000
5½ month contract						
III. December 1, 1966 - February 28, 1967						
12-month request	(2,254,000)	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -
90-day contract	413,000*	303,377	303,377	20	109,623	- 0 -
IV. March 1, 1967-November 30, 1967	1,691,000*	1,300,000	1,300,000	14	481,871	5,095
V. Dec. 1, 1967-November 30, 1968	1,997,378	2,000,000	2,000,000	- 0 -	- 0 -	- 0 -
Three level request	2,275,378*					
12-month contract	2,604,578					
Amendment to contract to run from May 1, 1968 to May 31, 1969	89,240*	89,240	89,240	- 0 -	- 0 -	- 0 -
VI. Dec. 1, 1968-November 30, 1969	3,070,664	2,700,000	2,660,000	40,001	56,731	56,731
Three level request	3,845,264*					
12-month contract	4,788,164					
Total Requests through November 30, 1969	$9,673,214*	$6,895,817	$6,835,873	$ 50,073	$708,225	$121,826
VII. Dec. 1, 1969-November 30, 1970 (Conditional contract $1,000,000 through March 31, 1970).	$3,999,040	$3,488,000	(Current contract negotiations incomplete)			

* Denotes RBS requests totalling $9,673,214.

that the organisation had to work harder and more skilfully in the political sense than many organisations have to. Besides building political acumen, perhaps contending with insecurity builds resiliency, too.

The character and personality of the chief executive are usually thought to be crucial to an organisation's success, at least in the abstract. Sometimes in the specific, administration is denigrated as being only a kind of support service for those who "really do the work" of the organisation. The ambivalence disappears when administration is called leadership; then everyone agrees, leadership is always vital. Considering that RBS has had always to swim upstream against the educational tide and that any rock in that river of institutionalisation could have killed it, the leader must have been at the very least, either a very skilled or a very lucky pilot. How does one speak about leadership except by saying what the organisation does, for can there be any doubt that successful leaders work in all sorts of different ways? There was once abroad the guileless notion that there must be a kind of Rosetta Stone of personal characteristics from which leadership quality could be read, as though there were a single alchemy of traits which spelled leader. Few believe in that sort of magic any more. But no one believes, either, that leadership is less than vital.

The major advantage that RBS has as an organisation is that it is doing the most exciting and self-fulfilling work an educational organisation can do. For some kinds of people, creative people whose motivations are intrinsic, an RBS kind of enterprise has an irresistible attraction. Those who want the organisation to guarantee them security cannot bring themselves to take the risk of employment at an RBS. But those who have enough ego and sense of purpose to believe that their efforts will secure the organisation are more willing to give up established positions hoping to find greater fulfilment in such an organisation. No one at RBS ever forgets, or is allowed to, for that matter, that the business of RBS is urgent. It is an organisation that understands the importance of attractive housing, the best new equipment, sophisticated communications, good salary and fringe benefits, competent and plentiful secretarial help, and plenty of respect for individual idosyncrasy. But it is also an organisation which expects and gets extraordinary efforts. The leadership strategy takes every advantage it can of the sense of mission and missionary zeal. Whether he is sixty-seven or twenty-seven, RBS gets all the man has to give, or he works elsewhere. These days there is a lot of scoffing at the work-ethic, but there is no honest way to disparage work. Working hard is still the most certain way any of us knows to achieve his own goals and to make an organisation succeed.

There is also the sense of the routine. The romance of leadership often overrides the simpler truth that orderliness is an indispensable quality in the long-run of an organisation. How especially this fact may be important in a creative organisation (one in which creativity is not only a characteristic of personality but the work-requirement) can only be guessed, but surely common human experience confirms that creative people are often the ones most bedevilled by their own incapacity for coping with the pedestrian. How much more still the routine of the organisation is critical to creative production when the organisation must cope with such overwhelmingly unimaginative agencies as the Bureau of the Budget, the General Accounting Office and the General Counsel of HEW - the flinty federal guardians of integrity! The routine is well-managed at RBS, as efficiently as business claims to do its routine tasks when it preens itself against the implied slovenliness of educational institutions. The business management job is handled by an Educational Administration Ed.D. who not only knows how to be a business manager, but who understands the ethos of an organisation like RBS and accommodates his orderliness to its creativity.

There is also the board of control. How to assess it in the mix of management? The theory of a board in business is that it provides the enterprise with experienced good sense and expertise from a variety of backgrounds. Besides, the board represents the stockholders, whose interests are thus protected. In education, there is, additionally, a political purpose deriving from the democratic principle that the board not only safeguard the public interest but, in fact, that it be accountable to the public for stewardship. In the United States, each local board of public education, for example, is a legal body politic to which the state grants the right to operate a school district, being in consequence responsible and accountable for doing so within the applicable laws. The board of RBS is neither quite a business nor a school district board, but a lot like both. Title IV requires a board for the laboratory, following the same popular wisdom as is embodied in the maxim, "War is too important to be left to the generals". Education is too important to be left to educators.

Certainly it is a fact that a major criterion in DEL's evaluation of the laboratories was their governance, which in practice meant a judgment about the effectiveness of the board and its relationships with the executive director. Just how this judgment was made is either too obscure or too subjective to relate, but made it was.

In the RBS experience, the board was not only representative in the regional sense, but representative across a wide spectrum of the region's business and educational institutions. Able and trained people have served the laboratory's board, and that was a kind of triumph of planning, persuasion and the public spirit of busy people. But there is more than getting good people in making an effective board. If the literature in educational administration is to be believed, the nurture of a board is among the most critical and difficult tasks an executive carries out. Not only is there the ever-troubling problem of functional integrity - board for policy, executive for management - which is founded on understanding of role and mutual trust, but in the RBS instance the pivotal requirement was that the board combine the prudence, which could be readily expected from a senior and responsible group, with a boldness of vision and willingness to take risks in striving for the main chance, which was behaviour not altogether predictable for such a group.

One judges these things by results, and by results the RBS board has been very effective. It has been understanding and supportive of RBS planning, and it is not an unrelated fact that few boards get as much carefully prepared information as the RBS board gets. It has been bold in taking programmatic risks, and it has been stubborn and principled when it has had to be in dealing with the federal bureaucracy.

The RBS board heads a non-profit corporation using primarily public funds to accomplish an inherently risky mission, and that seems to exact special demands upon those who must be accountable for the organisation's policies. There is no way to deprecate the board role.

If one looks for the medium which holds the management mix together, the strategy of managing by plan seems to be that. Dror 25) says, "Planning is the process of preparing a set of decisions for action in the future directed at achieving goals by optimal means". Which is the bare bones of it. The meat on those bones is the quality of having a purpose that an organisation achieves when it lives by the rigorous disciplines of planning. The quality of being aimed has nothing to do with single- or multi-purpose institutions, with simple or complex or with small or large. An organisation with a purpose is one which is goal-directed in the most specific ways.

The world of education is full of organisations whose sense of purpose and whose goal-structures are diffused, generalised, vague, and only dimly understood even by those who work in them, to say nothing of those who are their clients. Noble, high-minded, honoured by tradition though they indubitably are, at least for the most part, statements of philosophy which can mean almost anything and objectives so fuzzy that they serve only to confuse the accrediting agencies which require them to be stated, add no more than a patina of respectability to a muddle conception of role. The world is overburdened with educational organisations going off in all directions at once.

Some educational organisations are directed toward defined objectives and are moving toward them by appropriate means; they are aimed. At the very least, such organisations know when they have lost their way. Which is more than can be said for most educational organisations in the world.

Chapter III

PROGRAMMES

RBS operates three major programmes:

Individualising Learning Programme, of which the major component is Individually Prescribed Instruction.

Administering for Change Programme, a system of administrative methods for use by schools to organise, plan and manage educational change.

Humanising Learning Programme, a new curriculum for learning the skills of higher cognition, interpersonal behaviour and affective behaviour.

All three are directed at achieving the RBS mission which is stated: "The focus of the laboratory is on those activities which optimise the opportunities for individualising and humanizing learning". Together, the programmes currently employ seventy-three professional and forty-two support staff. In addition, in FY 1971, $643,100 was budgeted for consultants and joint agreements.

Most people who have heard of RBS associate it with Individually Prescribed Instruction. Since most of its money has gone into IPI operations, that may be a reasonable identification. But RBS is not a single-programme laboratory.

The planning document RBS sent to DEL on April 30 1966 set out nine "programme priorities" of which "IPI Diffusion" was the major one. None of them survives in its original form, not even "IPI Diffusion", which as amended is part of the Individualising Learning Programme, but all are, in one way or another, moulded into the three-programme format of the laboratory.

Some of the discrepancy between first plans and current operations came about because of lower-than-expected funding of Title IV. Mostly, though, the first planning was simply not as sharp as later planning came to be. Experience developed better understandings and judgment, and by September 1968 RBS was able to state its major programmes as being three: Individualising Learning Programme (ILP), Administering for Change Programme (ACP), and Humanising Learning Programme (HLP). The four following pages show the transition graphically.

Individualising Learning Programme

At least four generations of American teachers and administrators have been exhorted in their courses in education to value each child as a unique person of dignity and worth, each different in his abilities, rate of maturation and mix of personality characteristics. But few children had ever been taught in some special way that suited his uniqueness, except that some teachers made some special efforts to regard him as such.

As long ago as 1888 history records a structured attempt to individualise instruction in Pueblo, Colorado, through a laboratory style of instruction. Frederick Burk tried another self-study version of individualisation in 1912, at San Francisco State Normal School. Carleton Washburne and Helen Parkhurst, out of their association with Burk, devised, respectively, the Winnetka Plan and the Dalton Plan eight or so years later. Henry Morrison developed the unit plan a few years later.26)

Of course, there have always been other kinds of de facto individualisation of sorts: segregating good and fast learners from slow and poor ones, ending formal instruction for those who have reached the apparent limit of their learning, and tutoring, for example. In the more contemporary, sophisticated era there have been such adaptations on programmed instruction - machines and texts - computer applications and novel grouping patterns.

The phenomenon of the long history of problem solutions which have failed or expired of their inadequacies is common and universal. In his classic study of educational change process, published in 1941, American Schools in Transition, Paul Mort named the time during which these failed inventions occured as the period of "fits and starts" and noted that frequently the time span during which they waxed and waned was as long as the time it took, finally, to diffuse the acceptable invention through ninety or more per cent of the schools to which it was meant to apply. The fits and starts are innovations which are inadequate to the need and are deemed unacceptable. The innovation which proves to be acceptable, the pragmatic position is, becomes so because most schools adopt it.

All of which raises the perennial dilemma of change: at the

Figure 2

AN EARLY PROGRAM CONCEPTUALIZATION, R.B.S.

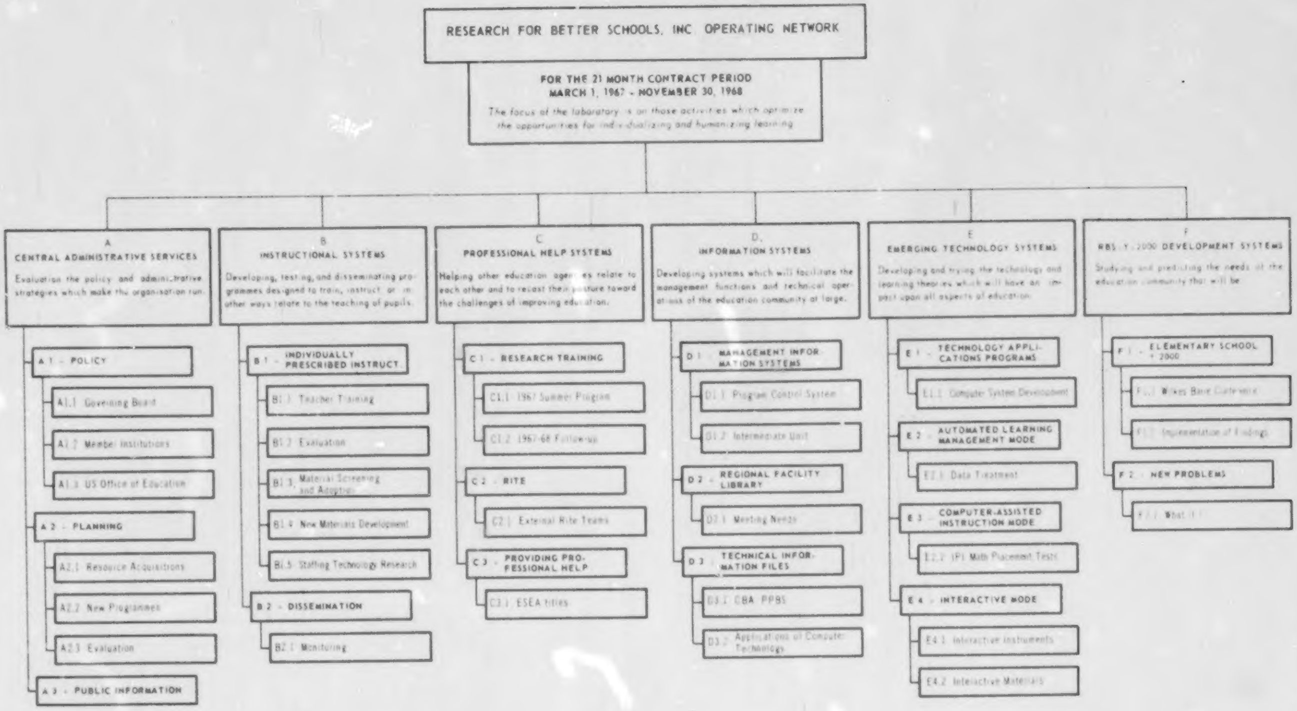

RESEARCH FOR BETTER SCHOOLS, INC. OPERATING NETWORK
FOR THE 21 MONTH CONTRACT PERIOD
MARCH 1, 1967 - NOVEMBER 30, 1968
The focus of the laboratory is on those activities which optimize the opportunities for individualizing and humanizing learning.
A
CENTRAL ADMINISTRATIVE SERVICES
Evaluation the policy and administrative strategies which make the organisation run.
A 1 - POLICY
A1.1 Governing Board
A1.2 Member Institutions
A1.3 US Office of Education
A 2 - PLANNING
A2.1 Resource Acquisitions
A2.2 New Programmes
A2.3 Evaluation
A 3 - PUBLIC INFORMATION
B
INSTRUCTIONAL SYSTEMS
Developing, testing, and disseminating programmes designed to train, instruct or in other ways relate to the teaching of pupils.
B 1 - INDIVIDUALLY PRESCRIBED INSTRUCT.
B1.1 Teacher Training
B1.2 Evaluation
B1.3 Material Screening and Adoption
B1.4 New Materials Development
B1.5 Staffing Technology Research
B 2 - DISSEMINATION
B2.1 Monitoring
C
PROFESSIONAL HELP SYSTEMS
Helping other education agencies relate to each other and to recast their posture toward the challenges of improving education.
C 1 - RESEARCH TRAINING
C1.1 1967 Summer Program
C1.2 1967-68 Follow-up
C 2 - RITE
C2.1 External Rite Teams
C 3 - PROVIDING PROFESSIONAL HELP
C3.1 ESEA titles
D.
INFORMATION SYSTEMS
Developing systems which will facilitate the management functions and technical operations of the education community at large.
D 1 - MANAGEMENT INFORMATION SYSTEMS
D1.1 Program Control System
D1.2 Intermediate Unit
D 2 - REGIONAL FACILITY LIBRARY
D2.1 Meeting Needs
D 3 - TECHNICAL INFORMATION FILES
D3.1 CBA PPBS
D3.2 Applications of Computer Technology
E
EMERGING TECHNOLOGY SYSTEMS
Developing and trying the technology and learning theories which will have an impact upon all aspects of education.
E 1 - TECHNOLOGY APPLICATIONS PROGRAMS
E1.1 Computer System Development
E 2 - AUTOMATED LEARNING MANAGEMENT MODE
E2.1 Data Treatment
E 3 - COMPUTER-ASSISTED INSTRUCTION MODE
E2.2 IPI Math Placement Tests
E 4 - INTERACTIVE MODE
E4.1 Interactive Instruments
E4.2 Interactive Materials
F
RBS Y 2000 DEVELOPMENT SYSTEMS
Studying and predicting the needs of the education community that will be.
F 1 - ELEMENTARY SCHOOL + 2000
F1.1 Wilkes Barre Conference
F1.2 Implementation of Findings
F 2 - NEW PROBLEMS
F2.1 What if?

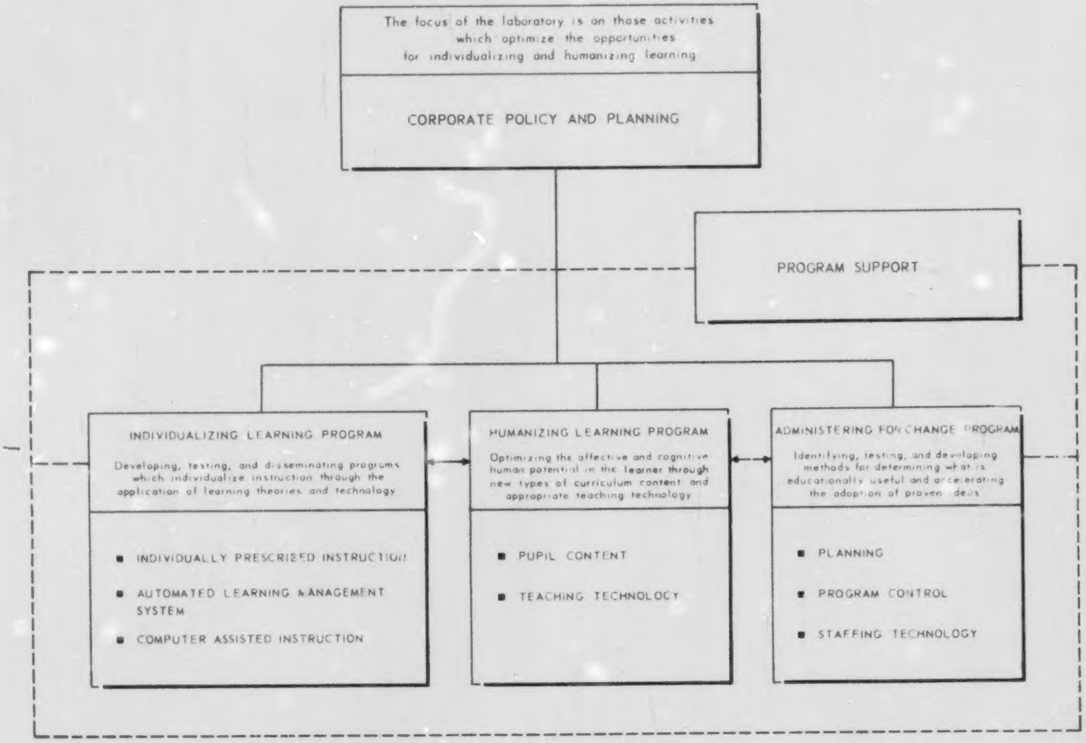
Table 2 - THE TRANSITION FROM THE EARLY TO PRESENT PROGRAMME CONCEPTUALISATION

FROM OLD TO NEW NETWORK

OLD NETWORK CHART (See Part I of Report)	NEW NETWORK CHART (See Chart which follows)	COMMENTS
Mission: The focus of the laboratory is on those activities which optimise the opportunities for individualising and humanising learning.	Same	None
Network A & F	Merged into two units (1) corporate policy and planning, and (2) programme support.	Old network F discontinued as a programme.
Network B & E, with the exceptions of B1.5 staffing technology, E1 technology application programmes, and E4 interactive mode.	Merged into individualising learning programme with components of individually prescribed instruction, automated learning management system, and computer-assisted instruction.	Old E1 discontinued as a programme.
Network E4	Merged into humanising learning programme with components of pupil content and teaching technology.	None
Network C & D with B1.5 staffing technology.	Merged into administering for change programme with components of planning, programme control, and staffing technology.	Discontinued are old C1, D2, and D3 as programmes, D2 becomes part of programme support on new chart.

FISCAL YEAR 1969

OPERATING NETWORK OF RESEARCH FOR BETTER SCHOOLS, INC



The focus of the laboratory is on those activities which optimize the opportunities for individualizing and humanizing learning

CORPORATE POLICY AND PLANNING

PROGRAM SUPPORT

INDIVIDUALIZING LEARNING PROGRAM

Developing, testing, and disseminating programs which individualize instruction through the application of learning theories and technology

- INDIVIDUALLY PRESCRIBED INSTRUCTION
- AUTOMATED LEARNING MANAGEMENT SYSTEM
- COMPUTER ASSISTED INSTRUCTION

HUMANIZING LEARNING PROGRAM

Optimizing the affective and cognitive human potential in the learner through new types of curriculum content and appropriate teaching technology

- PUPIL CONTENT
- TEACHING TECHNOLOGY

ADMINISTERING FOR CHANGE PROGRAM

Identifying, testing, and developing methods for determining what is educationally useful and accelerating the adoption of proven ideas

- PLANNING
- PROGRAM CONTROL
- STAFFING TECHNOLOGY

Table 3 - RBS FUNDING HISTORY

By Programme, to 30th November, 1970

RBS DOLLAR BREAKOUT OF OFFICE OF EDUCATION GRANTS BY CONTRACT

BY PROGRAMME	2/15/66-6/15/66	6/16/66-11/30/66	12/1/66-2/28/67	3/1/67-11/30/67	12/1/67-11/30/68	12/1/68-11/30/69	12/1/69 11/30/70	TOTALS
RBS Policy, Planning and Administrative Total Costs	$ 66,771	$ 75,593	$ 89,480	$ 339,990	$ 384,011	$ 412,769	$ 444,930	$ 1,813,544
DIRECT COSTS								
Individualising Learning Programme (IPI)								
A. Educational Development		60,000	16,200	45,000	100,000	191,628	402,185	815,013
B. Training								
Demonstration Schools		21,016	15,300	51,873	32,134	35,090	17,250	172,663
Field Pilot Schools		-0-	-0-	19,916	52,000	131,842	179,388	383,146
C. Field Operations								
Demonstration Schools		213,588	15,790	353,277	552,775	580,440	463,890	2,179,760
Field Pilot Schools		-0-	-0-	89,622	181,500	199,172	200,000	670,294
D. Production		-0-	17,500	27,322	76,620	208,425	223,436	553,303
E. Appraisal		10,000	84,107	75,000	200,200	227,634	335,154	1,032,095
F. Automated Learning Management System		-0-	-0-	-0-	-0-	-0-	-0-	-0-
G. Computer Assisted Instruction		-0-	-0-	28,000	80,000	128,000	147,200	383,200
H. Programme Equipment		60,000	-0-	5,095	-0-	56,731	-0-	121,826
TOTAL COSTS		364,604	148,897	795,105	1,275,229	1,758,962	1,968,503	6,311,300
RELATED COSTS								
Humanising Learning Programme								
A. Knowledge Base		-0-	10,000	50,000	130,000	178,375	330,754	699,129
B. Curriculum Construction		-0-	-0-	-0-	-0-	38,625	345,385	384,010
TOTAL COSTS		-0-	10,000	50,000	130,000	217,000	676,139	1,083,139
Administering for Change Programme								
A. Knowledge Base		26,250	55,000	120,000	300,000	101,619	59,764	662,633
B. Comprehensive Planning		-0-	-0-	-0-	-0-	62,337	75,702	138,039
C. Administrative Management		-0-	-0-	-0-	-0-	164,044	262,962	427,006
TOTAL COSTS		26,250	55,000	120,000	300,000	328,000	398,428	1,227,678
TOTAL LABORATORY COSTS	$ 66,771	$466,447	$303,377	$1,305,095	$2,089,240	$2,716,731	$3,488,000	$10,435,661

outset how is a fits and starts innovation distinguishable from a practical and acceptable one? To any who are inclined to say that good judgment based on experience provides such discrimination, it must be asked whether or not it seems likely that at least some fits and starts innovations perished from a lack of development rather than inherent flaw? No, the fact is that in an early stage of development the choice between good and bad is puzzling and difficult, despite criteria, experience and judgment.

But, of course, some choices must be made, though the slowness of educational change certainly reveals that many delay doing so in the hope, no doubt, that it will become easier. For a laboratory, however, long delay is impossible. The choice must be made early and the development bet made on less-than-absolute evidence. Which is one reason why RBS is a high-risk enterprise.

RBS has so far invested five years, about six million federal dollars,[27)] and more talent and energy than can be measured in IPI, a specific means of individualising learning. The bet is that IPI is an educational invention destined for wide-scale adoption by elementary schools.

Like most new things, some of IPI is old and some of it is putting existing ideas together in new ways. Its purpose is to permit the school (so far only the elementary school) to operate a programme of instruction which is modifiable to suit the learning needs and characteristics of each pupil. IPI is an instructional system which makes possible day-to-day design of each child's instructional programme by allowing teachers to vary within broad limits the basic instructional variables: mode of instruction, types of materials, rate of learning and amount of practice. The teacher judgments are made on the basis of a continuous, objective, recorded analysis of pupil progress which teachers use in their daily planning for each child.

From theory to practice, the model for IPI development observes six principles: 1. Detailed specification of educational objectives; 2. organisation of methods and materials to attain these objectives, including a variety of paths for attaining mastery of any objective; 3. a procedure for the diagnosis of pupil attainment stated in terms of educational objectives; 4. individual daily evaluation and guidance for each pupil, including a system for prescribing the specific learning task each pupil is ready to undertake; 5. provision for monitoring of pupil performance in order to inform both the pupil and the teacher of progress toward an objective, and 6. continual evaluation and strengthening of curriculum and instructional procedures.[28)]

By 1965, the Learning Research and Development Center at the University of Pittsburgh had brought the IPI instructional system to the point of being able to use it for reading, mathematics and science instruction in the Oakleaf elementary school.[29)] By 1966, when the RBS planning group first saw it operating, certain characteristics were apparent:

1. Teachers had virtually abandoned the talking-to-the-class-from-the-front-of-the-room posture in favour of a one-to-one, or one-to-two-or-three, way of talking with pupils.
2. The curriculum was organised according to specific content and skills, and its logic could be read in hundreds of specific behavioural objectives.[30)]
3. Children were intently busy about their tasks, moving freely about to get new materials, having their work checked by the teacher aide,[31)] getting their new assignments (prescriptions) from the teacher. Children were working at different assignments, at different levels.
4. There was time scheduled in the school day for teachers to plan together, using detailed, carefully prepared diagnostic and evaluative data for each child, for which the school employed additional personnel.

Oakleaf was certainly a different kind of elementary school from any the RBS planning group had ever seen. But was it really a substantially and significantly better one? Maybe, though it was clear that if RBS bought into IPI it would not be buying into a proven venture; there were many problems. If those problems could be solved, its promise was great, perhaps of even break-through quality. The bet was that the problems could be solved.

The way to begin seemed to be evident: LRDC would continue its development of IPI, addressing itself to the substantive matter of perfecting and extending the instructional system, and RBS would field-test (feeding back data to LRDC), demonstrate, disseminate and ultimately diffuse it. That was the original plan for the division of labour between RBS and LRDC.

It did not work out quite that way, primarily because LRDC was quite properly more concerned with its own integrity of mission which emphasized basic research rather than development, and besides, LRDC did not begin to command the resources to do all the development work at the rate RBS needed it, even if it were willing to try. It also turned out that there were manifold advantages in combining development with field-testing, dissemination and diffusion in the same organisation.

The concept of development, as in the phrase "research and development", is probably less clear than its widespread use would seem to signify. Richard Schutz, a laboratory director (SWRL), says, "Research and theory go together like development and improvement. The distinction is primarily in terms of outcomes generated. Research produces refined knowledge; development produces usable products". RBS' job was to make IPI a usable product. To do so, a strategy had to be planned and RBS had to tool up to implement it.

The dimensions of the development tasks were imposing. Substantial improvements were required in each of the six "development principles" listed earlier, but there were also these additional problems:

> The cost of installing and operating IPI was so much greater than usual expenditures for elementary schools that some cost reduction had to be accomplished.
>
> Teacher re-education for IPI, in 1966, had been done with only the eight teachers in Oakleaf. A means that would be effective and feasible for large numbers had to be devised.
>
> Management skills known to be necessary to successful IPI operation were still in the earliest stage of conceptualisation and development. Only one IPI-skilled principal, at Oakleaf, had managed such a programme, and his experience had begun in August 1964.
>
> The curricular dimension of IPI had not yet been enlarged to include social science, several features of the language arts, health and physical education, etc. Nor were the curricula in use as good as they might be.
>
> Materials, reproduced on separate sheets of paper and kept in pigeon-holed cabinets, presented a huge storage problem. The "paper blizzard" was a logistical monster.
>
> Some observers were concerned about an apparent lack of "socialisation" in the IPI classroom.

What may have initially appeared to be only a new instructional and learning strategy of individualisation of instruction came soon to be perceived for what it really was, a new system for operating an elementary school. RBS was getting into nothing less than a restructuring of all of elementary education; there was no aspect of schooling that was unaffected by IPI.

RBS was (and still is) a zestful organisation. Having been organised and funded to take on big and risky jobs of educational change, it plunged ahead. But carefully. There were long discussions with LRDC, the Oakleaf principal was hired as director of the RBS programme, Oakleaf operations were closely analysed, and planning was continuous. Still, it was a plunge because no one could say for sure in those spring days of 1966 just how big or even how possible the total job of work might get to be. In the course of it all one question was even more firmly resolved: there was too much promise in IPI to allow the difficulties to forestall the effort. What is wholly certain now, five years later, is that there was no other way than by the doing to find out whether IPI was just another fit and start or a genuinely revolutionary restructuring of elementary education.

To do the job at all, some things had to be done at once:

1. Arrangements had to be made to create a training centre for IPI principals and teachers during the summer of 1966 at McAnnulty elementary school, which was located near Oakleaf. Four of Oakleaf's teachers were transferred to McAnnulty.

2. Four school districts in the RBS region had to be chosen as the sites for demonstrations. Though RBS paid all the costs for IPI, all the decision-making machinery in the districts had to be engaged and persuaded of the sense of the role. Moreover, the decision had to be made in time to send their principals and teachers to McAnnulty for training in July.

3. A training programme had to be prepared for use in McAnnulty.

4. Work had to begin on an evaluation protocol 32) to be applied to the IPI field test.

Considering all these developmental tasks for IPI in the context of the laboratory's still precarious status as a new federal agency, it was only natural to be again impressed with the vital urgency of planning. The hallmark of the regional educational laboratory was its inherent unpredictability, not just as an organisation, but in its programming. It was a kind of double jeopardy in which the tenuous status of the organisation endangered the ambitious programme, and the riskiness of the programme threatened the organisation itself. The IPI programme required the sort of quick adaptability from its management as would have ulcerated the most hardened superintendent of schools. Though money supply surely was a fundamental need, the major need was planning competency. (The more unpredictable the enterprise the more it needs and rewards planning. Only a wholly predictable enterprise can do without planning, and then only if it resolves not to change.)

When the original RBS planning group made its projection for IPI in 1966 there was very little in the literature about theoretical models for dissemination and diffusion of educational innovation. Of the few available, the Clark-Guba was apparently the best for RBS. 33) The original RBS field-test and diffusion plan for IPI bore a strong similarity to the Clark-Guba model.

The plan was also constrained by the fact of regionality, simply because RBS was defined as a regional educational laboratory as interpreted by OE. The demonstration schools the plan required were then all located in Pennsylvania, New Jersey and Delaware.

It was soon apparent that RBS would have to modify its plan in the light of this first school experience:

> The summer training programme at McAnnulty, jointly operated by LRDC and RBS, was already inadequate for projected RBS purposes. There was, of course, the matter of numbers which a limited facility simply could not accommodate. More basic was the question of who ought to train teachers. Partly because of feasibility and partly to implement the concept that IPI principals ought to be prepared to exercise close leadership and supervision, the plan for training was changed to make principals responsible for training their own teachers in IPI instructional strategy. To do so, RBS developed a systematic training protocol which tried to anticipate every possible aspect of teacher training as well as the special training in the managerial skills the principals themselves needed.
>
> Almost as soon as the five demonstration schools opened (another installation for demonstration was added in 1967), requests for information and visitation began to come into RBS from all over the country. So far as IPI was concerned, it was

obvious that regionality was fictitious. Moreover, the implicit assumption of demonstration is that those who like what they see are invited to adopt. More than three thousand requests by school systems to be included in the diffusion pattern have come to RBS, of which all but a few hundred have had to be refused, a difficult position for a federally-funded agency.

The curriculum problems, of which there were two, and the materials problem had to be dealt with quickly, in part because they were related, and in part because RBS already recognised that there was implicit in what it was doing a commitment to achieve an individualised and "humanised" elementary school. What had started out being a limited field test and diffusion of the operational core of a new instructional system had now to be perceived as an effort to create a new elementary school in which a total new instructional system had to be installed. The limited objective no longer made sense. RBS planning now began to see how only this bigger goal enabled it to be faithful to its mission.

Intent on the processes of its system, LRDC had saved much time and expensive work by building its curricula from an eclectic ordering and selection of the best textbooks, originating only those content materials the textbooks did not cover. However adequate for LRDC purposes, such a curriculum was not really adequate in a day when bold and superior curricula were being produced. RBS was bound by the integrity of its mission to do better.

There was, also, the matter of completing the full range of elementary curriculum. Such a school as RBS envisaged could not, of course, be built with just a few pieces of IPI curriculum. RBS started almost immediately to build a social sciences curriculum and to complete the language arts with handwriting and spelling. And that related to the materials, which had to be published if they were to be diffused at anything like reasonable quality, cost and organisation.

Diffusion, it became clear, required a greater effort and resources than those who theorised and speculated about it were wont to believe. The mousetrap analogy - that the world would beat a path to a better one - is an article of faith in a free enterprise system, and it may even be true in some things, but it is not true for educational innovations which require behaviour adaptations, and where the integrity of the diffusion agent is at stake in preserving the integrity of the product. Diffusion is neither automatic nor as simple as the act of achieving adoption; there is, as well, the responsibility for helping adopters to understand and use the product properly.

At the time of this writing, April 1971, RBS is being confronted with a serious dilemma in its diffusion strategy. That there is a strong market for IPI is now established. In fact, not the least of RBS' problems as a diffusion agent is to fight off what it considers to be premature adoption by school districts which appear to be unlikely to install and use IPI effectively. If the development work were finished, and if the goal were only to diffuse the core of an instructional system rather than a total system on which to build a new kind of elementary school, RBS could now, or certainly soon, simply allow the materials to be published and marketed. The likelihood is that were RBS to do so the adoption rate would be rapid. But it would surely jeopardise the integrity of IPI.

At present, RBS employs an "operations team" of twelve professionals who travel the country visiting the 290 pilot schools which are part of the RBS field test. They are invaluable to the districts as consultants in all operational aspects of IPI, and they are invaluable to RBS for their feedback information and analysis. The operations team is hardly large enough now, however, and if more pilot schools were added, more RBS field staff would have to be added, too. While that may be possible, the larger question remains: for how long and to what extent of money and other resources is it feasible and reasonable for RBS to maintain such close monitoring? There are only four alternatives possible: 1. RBS might simply continue its present pattern indefinitely; 2. RBS might simply allow its IPI materials to be published, allowing the market to behave as it will; 3. RBS might, through some legal device, go into the publishing business and use monies so earned to operate a field team of consultants and otherwise continue to control the diffusion process; or 4. RBS might contract with commercial publishers for the publication of materials, but require them by contract to provide consultant and monitoring services for customer schools in co-operation with RBS, and to maintain criteria for readiness to adopt IPI. Moreover, RBS would have to be empowered to monitor the publisher.

The first two alternatives are quite untenable, for it is really not sensible for RBS either to continue in its present posture indefinitely or to abandon IPI before it has attained maturity. What is necessary is a change in the relationship of RBS to the field, to step back a little, but nevertheless to maintain an operational linkage and enough control to insure integrity.

In a free enterprise economy it would seem a reasonable expectation that the publishing industry should provide such a linkage as RBS requires, for it appears to be in everyone's interest. It may still work out that way, but for now the necessary agreement requires an extra measure of investment and responsibility that publishers are loath to make and take, although one publisher has agreed to market IPI mathematics, beginning in 1972, according to RBS specifications. But this is not enough, of course, and the other alternative, requiring RBS to become its own (non-profit) publisher, if that can be legally done, may have to be employed.

The point, of course, is that the commercial publisher should be an integral link in the diffusion process, there being no existing alternative quite as desirable. Publishers have the marketing capability, the organisation and expertise to sell and install materials. For RBS to build an equal organisation to replicate what a publisher can already do is not only difficult and costly, but a waste of resources which would be better used for other work. But the venture RBS proposes is different from a publisher's ordinary business, which is only to print and sell. RBS wants additionally that the publisher select his customers and invest in achieving a capability for on-site consultant help to schools to insure successful adoption. For its part, RBS is ready to help the publisher by training his marketing staff and acting as the general consulting and monitoring agent for the publisher, at the publisher's expense. Unless some arrangement approximating such a linkage can be made, the successful diffusion of IPI is jeopardised.

The role of the commercial publisher in helping to diffuse complex instructional systems has not yet been defined; apparently it is different enough from marketing simpler printed devices to require some innovative adaptation of its own.

RBS is also going to change its demonstration and training operations. Regionality makes no sense, and the demands of national and even international diffusion argue the sense of dispersing demonstration schools so that school officials anywhere will find it easy to visit them. Probably, the new demonstration-training school pattern 34) will give each state one or two IPI demonstration-training schools. Already a start has been made in meeting with all fifty state departments which would be involved, and the expectation is (at the time of writing) that by September 1971 the national pattern of demonstration-development-training schools will have been begun. The present demonstration school pattern would, of course, be phased out.

When the new national pattern is established, and it may take about two years to become complete, RBS will be able not only to have the advantage of demonstrations in almost every conceivable school situation and thus to be able to provide ready access to school people who wish to see IPI, but a large enough number of demonstration schools will give RBS the flexibility for IPI development that it so much needs. One more advantage would accrue; the training function could be made continuous and decentralised, thus permitting larger numbers to be trained in relative ease according to a master plan. It would be quite simple, for example, to designate a given week each month in each demonstration school as the training time and place for new IPI principals. The possibilities such scheduling flexibility would open up are, of course, very great.

It is the principal (the administrator of the IPI system in the school) who is the key to successful implementation of IPI. It took a little experience to verify the fact, for in spite of much extolling by those who write about school administration of the principal's crucial role, the simplistic notion persists that education is mostly a teacher-child activity in which others only serve peripherally.

While the teacher-child activity is surely the heart of it, IPI is an instructional system. Other functions are neither dispensable nor even minor. The capability of an instructional system depends on the competency and interaction of all its parts, all bent on accomplishing a co-operative function. The principal manages the total system. His importance is thus built into the IPI concept. Where there is no system, where the school is only a succession of quasi-independent teacher-pupil units, it may be possible to do without a strong instructional leader, but not in IPI.

The consequent strategy of IPI management at RBS has been to load the principal with instructional responsibilities. IPI management at RBS trains principals to train their own teachers not just for forty hours during the preparatory summer, but continuously throughout the school year. This training requires him to role-play the teacher's role and the child's as well as learning his own. He learns how planning works in the IPI system, and he plans with teachers at least once a week. He hires teacher aides and trains them.

He schedules and monitors the data-keeping, studies the progress of children and keeps aware of the pattern of teacher prescriptions. He organises the materials. He is, in time, responsible for managing a system of instruction, from beginning to end.

Cost, from the very outset, might have been a barrier to IPI adoption. IPI must cost more than ordinary elementary school programmes, for it has features which are just not present in most elementary schools. There are some modest facilities costs, such as shelving for materials and room for data-keeping. There are necessary continuing costs: daily teacher planning time for thirty minutes, the salaries of teacher aides at the rate of one for every ninety pupils, and a materials cost of anywhere from three to five times the ordinary costs. RBS has brought these costs down a good deal, but still, on the average IPI will cost, for start-up and continuing operations, about $50.00 more per pupil than ordinary elementary schools.

Experience, perhaps surprisingly, confirms the judgment that school officials who see and want what the IPI instructional system gives are not always frightened off by that much additional cost. Five or even eight per cent additional cost does not, apparently, itself put them off.

Some cost reduction is still possible, perhaps, through differential staffing and commercial publication of materials in large quantities, but IPI will always cost a little more than traditional instructional strategies.

The extension of IPI into the secondary school has not yet been tested by anyone. In theory there would seem to be no reason why it would not work there as well. But IPI is still an unfinished invention in a number of ways. There are some curriculum pieces (health, humanities, physical education) for the elementary school still to be produced. The last word on training has not yet been written, much less tested. There is still research going on at LRDC in management aspects. The interface between the developers and the commercial publishers has yet to be consummated. Variety in each subject field curriculum, to extend local choice, is just now being tried and developed. Some technological applications, though not yet feasible, will almost certainly be perfected sometime.

(One of the questions often asked about IPI is whether or not it is feasible to computerise it. The short answer is a qualified negative. The longer answer is that almost half a million dollars have been spent experimenting to find out. In the Intensive Learning Center of the Philadelphia schools, IPI math has been programmed for the computer, and it does work. But it is fearsomely costly and despite the cost, does not have audio. There is, to date, no apparent advantage in the computer over pencil and paper. What may happen by, say, 1980 is conjecture, but for now the technology simply is not, as they say, there.)

What has been demonstrated after five years is that IPI is a practical and effective way to individualise teaching and learning in the elementary school. It has also been proved that it requires large scale investment of money and talent to invent, develop, disseminate and diffuse a major educational innovation.

Administering for Change Programme

Educational change has finally been re-discovered. In the US Paul Mort was the first educational researcher to be fascinated by the change phenomenon. Starting about 1936 and continuing for some fifteen years, he and several dozen of his doctoral students carried on the work. 35) The studies and essays and papers read at meetings slowed down by about 1950, but recently they have come again on a floodtide. 36)

Most of the new concern has been with the phenomena of not changing rather than changing, though patently schools do change. After all, Paul Mort, who first showed how slow the rate of educational change was, used as his measurement of adaptability a clutch of changes which had been made in the Pennsylvania schools he studied.

Slowness of change, the seemingly haphazard way it occurs when it does occur, and the often traumatic effects change produces have contemporary writers in an etiological uproar. We are in a period of history when the need to improve our social institutions is evidently too urgent to permit any rate slower than immediate.

One wonders, in reading the vast new literature about educational change, how much some of the scholars know about schools, particularly about school administration; most particularly about school administration in decentralised, independent school systems. Sometimes, it seems that school administrators and teachers are being criticised by those whose lack of understanding of the operational realities of schools is very great.

In reading the current literature about educational change, one is struck by how much of it views the problem of rate of change as being to find the best means of getting enough leverage to move a school to do what it ought to do but which it is not doing because it is unresponsive and unwilling. Some see the leverage being provided by outside forces following some strategy of persuasion; others, mainly those who believe in group dynamics, [37] are ideologically committed to perceive the leverage as deriving from some internal staff-working-together force. In either case, the apparent assumption is that worthwhile changes could be made more rapidly if the schools could only be moved from their stability-prone affection for the devil they know and their mindless fear of the devil they do not know.

The trouble with the assumption is that it is something less than a half-truth.

The work of Administering for Change (ACP) is founded on the proposition that educational change is much more complicated than can be comprehended in leverage, linkage, or change-agent models. In a decentralised, independent school system organisation, such as there is in the United States, none of these extant models, ACP believes, deals with insight with many of the realities of school administration, and ACP begins with the premise that any useful model must deal with those realities for what they are, powerful constraints on the behaviour of administrators, boards of education and communities. [38]

There are quite a few of them:

> Innovative educational ideas and products of high quality have been very slow in coming from whatever sources they might come. Through the years the alternatives to existing programmes and practices in the schools have just not been that good or worth having.
>
> School systems do not now have nor have they ever had sufficient resources - in money, time or talent - to invent and develop their own alternatives. The reality is that major substantive changes cannot originate in school systems; at best, only trivial ones can.
>
> The demands upon school administration - upon all administration for that matter - are contradictory: administration must, simultaneously, maintain the organisation and improve it by adopting changes. The difficulty of keeping the balance between the conflicting demands, which is the only possible strategy administration can follow, is exacerbated by the pressures of divergent expectations and change-no change recommendations from various constituencies, staff and board.
>
> The chronic, even critical, shortage of money makes many proffered changes either difficult or impossible, since it is

a fact that many - probably most - changes cost more than the practices they are intended to replace, or are new, added expense.

Schools are arranged in a non-system format in the United States - that is, they are independent not only as decision-making organisations, but in that whatever support or infrastructure exists is informal, incomplete and molecular rather than molar - so that any innovative practice or product must make its way district by district, parochial school by parochial school, private school by private school, engaging each decision-making apparatus one at a time.

The role of teachers in the educational change process has been and still is anomalous. There is no history of teacher as change-agent, but the official teacher-organisation position is that teachers are and ought to be agents or at least controllers of educational change.

Schools are victimised by their own histories: being in a non-system, having no steady flow of developed products and practices to consider on any regular basis, being embroiled in a chronic conflict with the varied pressures from both inside and outside the organisation, being greatly concerned to maintain the organisation in a stable, steady state, and being chronically impoverished with respect to need, school administrators have characteristically relied upon a problem-solving strategy rather than a planning strategy. As a consequence, few school systems maintain a recognisable structure for planning, using instead an ad hoc arrangement for whatever planning is done.

Besides, major planning technologies are of quite recent invention.

More reality-based contra-indications to educational change in the behaviour of administrators could be cited; as, for example, the imperfections in university preparation programmes for educational administrators, the propensity of many boards of education to interfere in executive functions, the pattern of the "closed" classroom in which teachers have virtually inalienable, entrepreneurial rights by tradition, the often baleful effects of state education department bureaucracy, and the inertia from which all organisations tend to suffer. Anyone who persists in believing that the problem of increasing school system adaptability is as simple as leverage, linkage or change-agentry — or even all three together — probably has not spent enough time studying schools and school administrators.

ACP operates on the principle that a major need is for an educational change product that will provide administrative capability to enable schools to adopt educational changes at levels of minimal risk, [39] a system for "organising for, planning and managing change".

The plan of work of ACP is to begin with a systematic collection and interpretation of a knowledge base. Four RBS publications have come from that effort which together provide the best review of the applicable literature to date. [40]

Concomitantly, the knowledge base component of ACP is formulating and developing a "change continuum theory as a way of viewing and measuring the existing change capability of local school districts". Their plan describes the task as follows:

> The change continuum theory embraces conceptualisation of the change capability of local school districts, development of instrumentation for measuring change capability, development of alternative school district change profiles, and prescription of change strategies for each of the profile groups. The reasoning behind this activity is that there is currently no tested means of measuring the extent to which school districts are capable of making changes. When developed, the theory will provide a basis for the construction of alternative school district change profiles along a continuum ranging from no-change-capability at one end to total-change-capability at the other end, and ultimately, for prescribing change strategies for the differentiated profile groups. Once the theory has been developed, this activity will be transferred to the Organisation for Change Component, where appropriate instrumentation and training materials for use by school administrators will be designed.

The sense of ACP is that school administrators can, if they wish, reorganise and restructure their organisations to make them more receptive to changes and more able to adopt them: that there are means by which the typical school organisation can change its own strategy of administration to make itself more responsive to its own needs. The postulate is that a change capability can be engineered by identifying, describing and prescribing structural mechanisms which will do so.

The postulate is debatable, of course, not only because it has yet to be demonstrated, but even more because it requires some revolutionary changes in ways of thinking about administering schools.

For one thing, ACP starts out by adopting a systems approach to school district organisation: "... which allows one to view a district as a group of interrelated and mutually dependent activities which are directed toward a set of shared objectives", says ACP's planning document. There are no survey data to prove the impression, but few observers of American school districts are ready to believe that there is any widespread readiness among teachers for a systems approach, however willing school administrators may be, which is itself much in doubt. Rather, the growing power of teacher organisations seems much more intent upon safeguarding and reinforcing traditional prerogatives, and adding new ones, than would seem to admit of the kind of co-operation which systems thinking and behaviour requires.

The crunch of the conflict is most apparent in what ACP has already identified as the key to restructuring school districts for greater change capacity, the planning capability. In systems theory nothing is more critical to effectiveness than the ability to make comprehensive plans, and it is precisely at this point that the greatest reforming of school district priorities is necessary and, in consequence, that the greatest role conflicts are likely to occur.

The quality of this conflict is so critical that ACP's conceptualisation of school district planning capability is ideologically committed to a "bottom-up" approach, one which starts with input and judgment roles for teachers and community and, it may be presumed, students, too.

Recognising the hard fact that the dual responsibility of administration includes maintenance of the school organisation, and that no amount of change capability can relieve administration of the on-going management tasks, the ACP strategy also includes a management component. The concept, simply, is that a change capability is supported by a management capability which keeps the total organisation functioning and viable before, during and after the rigours of planning and implementing changes.

No one at RBS, much less within its ACP unit, is naïve about the enormous difficulties inherent in the Administering for Change Programme. In some ways, ACP is the most ambitious and most revolutionary of the RBS programmes, if only because it seeks to change what has been the least changed of all school characteristics, administrative structure and the mode of administrative behaviour.

Since about 1850 until very recently, school administration in the United States has been evolving and developing along a single basic line. Until the last few years, whatever changes may be perceived in that history are adjustments and accommodations enforced by the logic of the line. There has been no substantive change, no redirection, no lack of faith in the validity of the line.

That line, of course, is bureaucracy. Like business and government, education has been evolving administratively into more specialisation of functions, elaborated hierarchical structure, greater concentration of the power of authority at higher levels in the hierarchy, greater faith in the economies of scale, greater functional distance between teachers and administrators and ever-greater administrative concern for maintaining the stability - the steady state - of organisation.

In the early years of the 1950 decade, as a consequence of the first large-scale study of educational administration in the US,[41] some modest questioning of the line began, though not in any revolutionary or punitive way. The study, indeed, never questioned the inevitability of the line, but it did offer some ideas which modified it. Among these new ideas was the concept of the superintendency which said that the job of the superintendent of schools had grown so varied and complex that one man could no longer do it, that it required a group of executives working co-operatively. CPEA called the co-operative group the superintendency.

If in 1971 the concept no longer seems new or exciting, merely obvious, it may only prove that an idea whose time has come really is powerful. About all it did was open to question the wisdom of the steady march of administration toward ever-higher levels of remove from the corpus of the organisation. The concept of the superintendency was the claim that organisations were better when they were more like co-operatives than when they were like entrepreneurial corporations. Of course the irony was that entrepreneurial business corporations had much earlier learned the hard way that they were better off when they were structured more like co-operative organisations.

Meanwhile, the preparation programmes in the universities were featuring extensive exhortations to future administrators to behave democratically, to abjure the authoritarian and to be better than a *laissez-faire* non-leader. However unsophisticated this sort of role analysis was - and it was embarrassingly primitive - it did represent a kind of groping for some way to make administrators understand that school organisations were likely to work better if they were governed with the consent of the governed.

Just lately, that kind of thinking has come into focus with the demands of citizens, students and teachers that they have some decision-making responsibility. Not only do they seem to believe that administration is too important to be wholly entrusted to administrators, but they have become insistent on the principle that they have the right to affect decisions which affect them.

Despite the rising tide of demand, administrative structure and practice are only little changed; in fact, there is no persuasive evidence that such few and modest changes as have occurred - and those more in the universities actually than in the school districts - are in any way revolutionary or even substantive. These are still accommodations and adjustments leaving the basic organisational strategy and structure intact.

What ACP is trying to accomplish is revolutionary and substantive. The programme envisages a change from a problem-solving mode to a planning mode, a major reversal of administrative strategy because it minimises the ad hoc use of authority to make managerial decisions in favour of maximising the use of planning and stated objectives to guide long-term behaviour. The programme proposes a built-in means for widespread participation in that planning, another major reversal of current practice. And, perhaps most revolutionary, it envisages building a system from what is now a non-system.

Monumental as the task may be, stranger things have happened in the history of man's institutions, even in the history of education. There are predisposing conditions which actually favour ACP's task. For one, there is a rising tide of demand for a role in decision-making from the schools' constituencies; for another, there is a growing recognition by school administrators that they may have come to the logical end of the value the old bureaucratic line had for them; and for still another, the stability of school organisations is being threatened as never before by deep-running dissatisfactions not only in the body politic but in the body of the school establishment itself. 42)

For its part, ACP is reality-based. Much of its work is being carried on in field settings, in real school districts where by contract RBS is experimenting with its concepts and emerging products. Except for its knowledge-base publications, there are as yet no products on which to judge ACP, but there will be within the year.

There appears to be a justifiable hope that ACP will be able to produce effective products, in school system structure, in planning process, in management systems, and in materials for teaching requisite skills. But the logic of the programme is so bold, so directly aimed at the most rigid aspect of organisational stability, that the potential resistance - however ameliorated by current perceptions - is really incalculable. What remains to be seen, if ACP does reconceptualise administrative organisation, structure and process, is whether or not administration can break its habit of doing things to others and learn to change itself.

Humanising Learning Programme

As James Becker, RBS' Executive Director has said, "We've been touting humanism since the twelfth century, without visible result". Despite this bad record, RBS is now in the midst of a major programme for inventing and developing a curriculum through which children may learn certain skills which schools have rarely, if ever, attempted to teach directly. HLP conceptualises these skills as:

1. Intellectual Skills, the higher order cognitive skills, beyond memory.
2. Social Skills, the interpersonal and human communication skills.
3. Emotional Skills, the affective skills, such as self-awareness and self-fulfilment.

These are the sets of skills people usually mean when they ask such questions as:

1. What are the content aspects of teaching others how to think - not the psychology or theory of how we think, but the skills themselves? This would include such content areas as generating inferences from data, testing inferences, being able to make decisions on a pragmatic basis rather than on a subjective, private basis, being able to collect and organise data and use them for problem-solving, being able to consider alternatives in decision-making, being able to function on a variety of levels of thinking such as memory, convergent, divergent, speculative and evaluative and so forth.

2. What kinds of learnings about interpersonal relationships are useful to children; for that matter, to anybody? This would include such content areas as being able to function effectively in groups of different sizes in an age of specialisation; knowing, and being able to use, the skills of leadership and of membership; knowing how, and being able to exert influence explicitly and non-manipulatively, how to communicate both data and feelings explicitly, how to handle conflict constructively.

3. What kinds of learnings about feelings and attitudes can be fruitfully taught? This would include such content areas as confrontation with one's own prejudices and acceptance of responsibility for those feelings; development of a sense of power and control over self and environment, and development of commitments and responsibility for relevant aspects of class, family, school, community, city, country and world. 43)

In short, the goal of HLP is to invent and develop a curriculum for teaching the behavioural skills which are the characteristics of maturity. Mature persons are those who (i) leave off illusion in favour of reality and who are able to operate in the world as it is, (ii) leave off irresponsibility in favour of accepting the consequences of their own acts, and (iii) leave off dependence in favour of self-reliance, self-motivation and self-evaluation, acting from choice rather than compulsion. "Humanising", as HLP defines it, is virtually synonymous with "maturing".44)

A few years ago, DEL became fond of a metaphor to describe a phenomenon of educational R & D which likened the R & D process to a stream with the high-ground source waters representing basic research and then flowing down through invention, development, dissemination and diffusion. (Unfortunately, carried to its logical end, the metaphor left school districts all at sea, but of course no one carried it that far).

At meeting after meeting, as DEL and its consultants wrestled with the problem of conceptualising the "right" programmatic mix for the laboratories, the metaphor served to highlight what was happening - which was that the laboratories were starting farther and farther upstream. It was inevitable. One thing leads to another.

Consider the RBS experience.

If IPI were to become as good and as widely adopted as its advocates hope, there would still be those who would criticise it for exerting "excessive pressure" upon children. No doubt that as the teaching of subject matter becomes more systematic and finely geared to the limits of individual capabilities, greater demands are made on learners. But that outcome is probably not the one to be feared, unless schools should so far lose their sense of proportion as to treat the child like a Strasbourg goose, force-feeding him to produce the pâté of knowledge. If all the school does is to optimise subject matter learning, it is not enough. No one who is at all sensitive to the dislocations people suffer in a world running downhill into the 21st century can believe any longer in single solutions in anything, especially in education.

Besides knowing how to read, write and do arithmetic, children need to learn how to cope with themselves and each other, to function in a society whose psychic demands grow ever greater even as its physical demands decrease. Those who do cope have somehow learned the skills for doing so, it is apparent, but the school did not teach those skills directly.

But suppose, as a working hypothesis, that these humanising skills, whatever they are, are teachable - for certainly they are learnable - should it not be possible to invent, develop and produce a means, a curriculum, for doing so?

The knowledge base for HLP comes from varied sources: 45)

1. Content and Materials Resource Collection
   These are books, articles, parts of curriculum embedded in other teaching programmes, and even audio-visual materials. Also included are communications with researchers, developers of curriculum materials and organisations who have shown an interest in humanising learning.

2. Psychological and Emotional Maturation Collection
   Included here are the works of psychologists such as Piaget, Erikson, Werner, Lewin and others who have written on, or are working on, the relationship between cognition and affective maturation.

3. Group Dynamics Materials Collection
   In this collection are materials for skill development and attitude modification including descriptions of techniques for their utilisation. Also included are personal resource listings like those in the rest of the collections.

4. Teaching Strategies Collection
   These are materials describing, textbooks about, and a listing of personnel dealing with various strategies for teaching pupils. This collection comes primarily from the field of education, but is being expanded to include other disciplines. The number of different strategies is not great, and the explicit differences in their approach to teaching are sometimes obscure. Therefore, this collection tends to acquire material of more reputation than its application might warrant.

5. Interaction Analysis Instruments Collection
   This collection includes the actual instruments and handbooks dealing with their use, related papers and articles, and a list of personnel working in this field. This collection is already extensive.

6. Humanising Learning Tests Collection
   At its inception, the collection was limited to machine scoreable, paper and pencil group tests dealing with the curriculum content of "humanising learning" for preadolescents. It is being extended to include all forms of tests, regardless of scoring requirements and without limit to age.

Mirrors for Behaviour, a six-volume anthology of all the interaction analysis instruments then (1967) known, was published by RBS, following the policy that its major knowledge base materials should be made available to the field. This anthology has since been expanded through seventeen volumes. Interaction analysis, a specialised branch of group dynamics, has a crucial place in the knowledge base of HLP because the early clues to the centrality of the three kinds of behavioural skills which make up HLP are all implied in interaction analysis. But then, if one were to take the time to check, as RBS did, these skills are also said to be the hallmarks of educated men and women by almost everyone who has tried to say what those are.

A close examination of the planning chart on the following pages tells a great deal about RBS, about the emerging role of the educational laboratory and, of course, about HLP.

The chart is the visual representation of a plan,[46)] which may be defined as the output of a planning process. One appropriate inference to be made from it about RBS is that it exemplifies the

Figure 4

HLP OPERATING PLAN

RESEARCH FOR BETTER SCHOOLS-HUMANIZING LEARNING PROGRAM

CURRICULUM DEVELOPMENT CYCLE

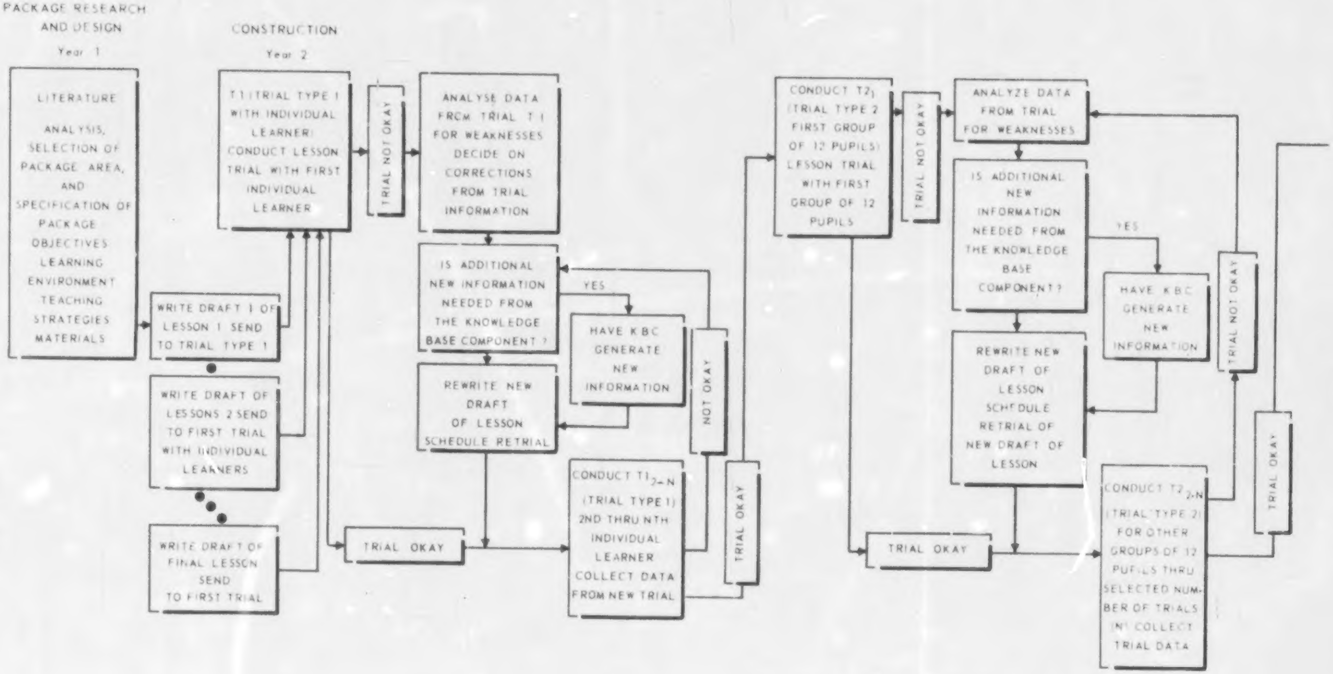

PACKAGE RESEARCH AND DESIGN
Year 1
CONSTRUCTION
Year 2
LITERATURE ANALYSIS, SELECTION OF PACKAGE AREA, AND SPECIFICATION OF PACKAGE OBJECTIVES LEARNING ENVIRONMENT TEACHING STRATEGIES MATERIALS
WRITE DRAFT 1 OF LESSON 1 SEND TO TRIAL TYPE 1
WRITE DRAFT OF LESSONS 2 SEND TO FIRST TRIAL WITH INDIVIDUAL LEARNERS
WRITE DRAFT OF FINAL LESSON SEND TO FIRST TRIAL
T1 (TRIAL TYPE 1 WITH INDIVIDUAL LEARNER) CONDUCT LESSON TRIAL WITH FIRST INDIVIDUAL LEARNER
TRIAL NOT OKAY
ANALYSE DATA FROM TRIAL T1 FOR WEAKNESSES DECIDE ON CORRECTIONS FROM TRIAL INFORMATION
IS ADDITIONAL NEW INFORMATION NEEDED FROM THE KNOWLEDGE BASE COMPONENT ?
YES
HAVE KBC GENERATE NEW INFORMATION
REWRITE NEW DRAFT OF LESSON SCHEDULE RETRIAL
NOT OKAY
TRIAL OKAY
CONDUCT T1$_{2-N}$ (TRIAL TYPE 1) 2ND THRU NTH INDIVIDUAL LEARNER COLLECT DATA FROM NEW TRIAL
TRIAL OKAY
CONDUCT T2$_1$ (TRIAL TYPE 2 FIRST GROUP OF 12 PUPILS) LESSON TRIAL WITH FIRST GROUP OF 12 PUPILS
TRIAL NOT OKAY
ANALYZE DATA FROM TRIAL FOR WEAKNESSES
IS ADDITIONAL NEW INFORMATION NEEDED FROM THE KNOWLEDGE BASE COMPONENT?
YES
HAVE KBC GENERATE NEW INFORMATION
REWRITE NEW DRAFT OF LESSON SCHEDULE RETRIAL OF NEW DRAFT OF LESSON
TRIAL NOT OKAY
TRIAL OKAY
CONDUCT T2$_{2-N}$ (TRIAL TYPE 2) FOR OTHER GROUPS OF 12 PUPILS THRU SELECTED NUMBER OF TRIALS (N) COLLECT TRIAL DATA
TRIAL OKAY

Figure 4 (Continued)

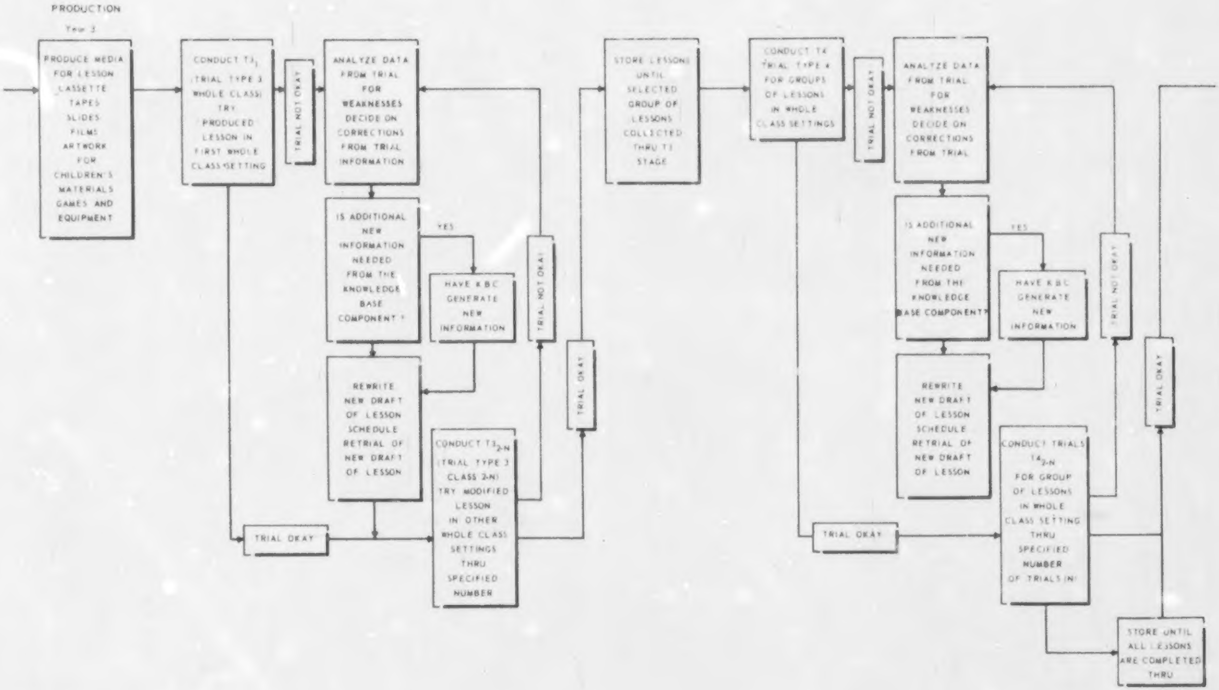
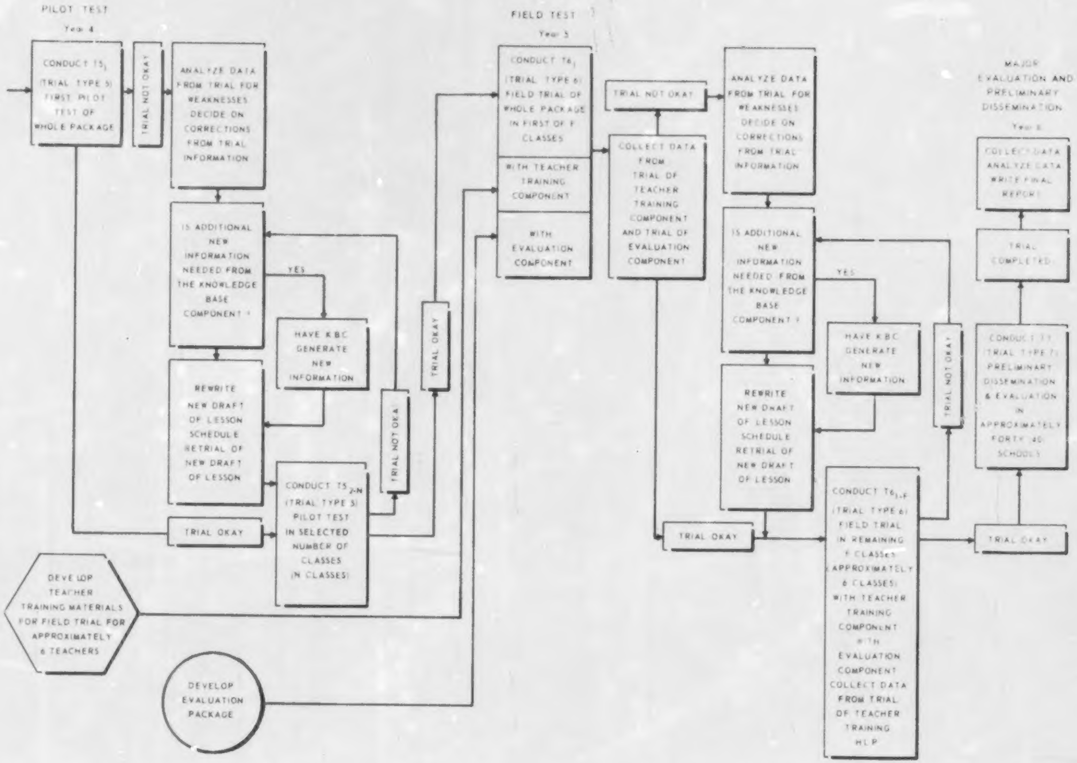

PRODUCTION
Year 3
PRODUCE MEDIA FOR LESSON CASSETTE TAPES SLIDES FILMS ARTWORK FOR CHILDREN'S MATERIALS GAMES AND EQUIPMENT
CONDUCT $T3_1$ (TRIAL TYPE 3 WHOLE CLASS) TRY PRODUCED LESSON IN FIRST WHOLE CLASS SETTING
TRIAL NOT OKAY
ANALYZE DATA FROM TRIAL FOR WEAKNESSES DECIDE ON CORRECTIONS FROM TRIAL INFORMATION
IS ADDITIONAL NEW INFORMATION NEEDED FROM THE KNOWLEDGE BASE COMPONENT?
YES
HAVE K.B.C. GENERATE NEW INFORMATION
REWRITE NEW DRAFT OF LESSON SCHEDULE RETRIAL OF NEW DRAFT OF LESSON
TRIAL OKAY
CONDUCT $T3_{2\text{-}N}$ (TRIAL TYPE 3 CLASS 2-N) TRY MODIFIED LESSON IN OTHER WHOLE CLASS SETTINGS THRU SPECIFIED NUMBER
TRIAL NOT OKAY
TRIAL OKAY
STORE LESSONS UNTIL SELECTED GROUP OF LESSONS COLLECTED THRU T3 STAGE
CONDUCT T4 TRIAL TYPE 4 FOR GROUPS OF LESSONS IN WHOLE CLASS SETTINGS
TRIAL NOT OKAY
ANALYZE DATA FROM TRIAL FOR WEAKNESSES DECIDE ON CORRECTIONS FROM TRIAL
IS ADDITIONAL NEW INFORMATION NEEDED FROM THE KNOWLEDGE BASE COMPONENT?
YES
HAVE K.B.C. GENERATE NEW INFORMATION
REWRITE NEW DRAFT OF LESSON SCHEDULE RETRIAL OF NEW DRAFT OF LESSON
TRIAL OKAY
CONDUCT TRIALS $T4_{2\text{-}N}$ FOR GROUP OF LESSONS IN WHOLE CLASS SETTING THRU SPECIFIED NUMBER OF TRIALS (N)
TRIAL NOT OKAY
TRIAL OKAY
STORE UNTIL ALL LESSONS ARE COMPLETED THRU

Figure 4 (continued)


PILOT TEST
Year 4
CONDUCT T5₁ (TRIAL TYPE 5) FIRST PILOT TEST OF WHOLE PACKAGE
TRIAL NOT OKAY
ANALYZE DATA FROM TRIAL FOR WEAKNESSES DECIDE ON CORRECTIONS FROM TRIAL INFORMATION
IS ADDITIONAL NEW INFORMATION NEEDED FROM THE KNOWLEDGE BASE COMPONENT ?
YES
HAVE KBC GENERATE NEW INFORMATION
REWRITE NEW DRAFT OF LESSON SCHEDULE RETRIAL OF NEW DRAFT OF LESSON
TRIAL OKAY
CONDUCT T5 2-N (TRIAL TYPE 5) PILOT TEST IN SELECTED NUMBER OF CLASSES (N CLASSES)
TRIAL NOT OKA
TRIAL OKAY
DEVELOP TEACHER TRAINING MATERIALS FOR FIELD TRIAL FOR APPROXIMATELY 6 TEACHERS
DEVELOP EVALUATION PACKAGE
FIELD TEST
Year 5
CONDUCT T6₁ (TRIAL TYPE 6) FIELD TRIAL OF WHOLE PACKAGE IN FIRST OF F CLASSES
WITH TEACHER TRAINING COMPONENT
WITH EVALUATION COMPONENT
COLLECT DATA FROM TRIAL OF TEACHER TRAINING COMPONENT AND TRIAL OF EVALUATION COMPONENT
TRIAL NOT OKAY
ANALYZE DATA FROM TRIAL FOR WEAKNESSES DECIDE ON CORRECTIONS FROM TRIAL INFORMATION
IS ADDITIONAL NEW INFORMATION NEEDED FROM THE KNOWLEDGE BASE COMPONENT ?
YES
HAVE KBC GENERATE NEW INFORMATION
REWRITE NEW DRAFT OF LESSON SCHEDULE RETRIAL OF NEW DRAFT OF LESSON
TRIAL OKAY
CONDUCT T6 1-F (TRIAL TYPE 6) FIELD TRIAL IN REMAINING F CLASSES (APPROXIMATELY 6 CLASSES) WITH TEACHER TRAINING COMPONENT WITH EVALUATION COMPONENT COLLECT DATA FROM TRIAL OF TEACHER TRAINING HLP
TRIAL NOT OKAY
TRIAL OKAY
MAJOR EVALUATION AND PRELIMINARY DISSEMINATION
Year 6
CONDUCT T7 (TRIAL TYPE 7) PRELIMINARY DISSEMINATION & EVALUATION IN APPROXIMATELY FORTY (40) SCHOOLS
TRIAL COMPLETED
COLLECT DATA ANALYZE DATA WRITE FINAL REPORT

characteristic operating strategy of the organisation, which is to work by plan. The plan itself, however, does not show the thousands of written words and hundreds of thousands of spoken ones which make it possible, nor the number of consultants whose judgments were sought before it was put on paper. This plan is the end of long, rigorous, disciplined thinking.

The chart also shows by implication that in HLP the laboratory is starting further upstream in the R & D process, from invention. The early DEL position was that the laboratories were to be development, dissemination and diffusion agencies, that the research in the name was "a little r" denoting a concern for research in the sense of field test, evaluation and that which was incidental to its primary responsibilities. But it was the good judgment of DEL that this view of the laboratory research role should not be hardened into rules and directives. Thus, as it became clearer from experience that the laboratory might have to go into a larger 'R' role as its mission demanded it, DEL was not caught in a doctrinaire position. Led by the logic of its mission, RBS had indeed been obliged in HLP to start from early conceptualisation and invention. After all, there was no one else to do that job.

The chart, though, is intended to delineate the operational plan for producing a new product: a curriculum for teaching the humanising skills, including the development and field-test necessary to the task. Now beginning its third year, HLP employs some sixteen professionals, of whom twelve spend full or part-time in curriculum production, and eleven support personnel. One of the insights RBS has gained in its experience is that the demands for expertise in invention and development, particularly, make use of consultants vital. Accordingly, HLP spends about one dollar of each three personnel dollars on consultants. 47)

The product HLP is creating is a largely self-instructional curriculum, packaged so as to be almost teacher-free (i.e. virtually independent of instruction by the teacher) using several simple media (print, audio-tape, visual devices, etc.) as one of the means of being self-contained. In the 27 months since the beginning of the programme, the quality and effectiveness of even the curriculum pieces so far produced are not ready for definitive evaluation. But it is clear that the concept is feasible, that such a curriculum can be produced and used in actual classrooms and that children enjoy it.

For reasons of space and format, a sample of HLP curriculum packages cannot be reproduced in these pages, though to do so might greatly expedite its description. Even were it possible it would be premature to print it, considering its still experimental form. The conceptualisation of the curriculum is more definite, though, and reproducing a small sample of it may even better highlight the essence of what is being attempted. Accordingly, in Appendix I is reproduced a snippet from the first instructional package in the interpersonal skills portion of HLP.

In reporting on the work of HLP the limitation is time, for the product which is its payoff is still being invented, developed, field-tested and redeveloped. No one can say, except on faith, what will become of it. Enough has been done well enough to justify the effort, but it is still only half completed, according to the plan.

From this, as has been reiterated in the experience of the laboratories in general and RBS in particular, one can learn how long and arduous is the work of those who would truly change the substance rather than the cosmetics of education.

Chapter IV

AN INTERPRETATION

For more than 30 years now, since Paul R. Mort first published his study of educational change and hypothesised about the adaptability of the public schools, it has been accepted that schools are generally very slow to make changes. From the observation of the fact there has come, by easy transition the habit of ascribing blame; "slow to change" has become an indictment of administrators and teachers. There is a serious need to redress the balance a little.

There is at least as much justice in arguing that school administrators and teachers have been shrewd and forward-looking in being slow to adopt many of the new educational ideas and products they have been offered over the years. The hindsight view confirms their judgments that many, probably most, of the innovations offered were imperfect and ineffectual. There is no record that some marvellous educational products were lost only because school administrators and teachers resisted them. Indeed, it may even be that educators deserve more blame for having adopted too many poor innovations than for having been remiss in adopting too few of those they were urged to adopt.

The corollary indictment against administrators and teachers is that it has been their failure that new and better educational practices have not been invented and developed. But if we know anything at all from the experience in education in the last decade, we know how unfair a charge that is.

Not that school administrators and teachers deserve to be let off scot free for the incapacity of the schools. They have fostered the myth of their own self-sufficiency. They have confused the concept of political freedom through decentralised, independent school districts with the notion that school districts were all educationally unique and had to look to themselves for the better ideas which uniquely suited them. They have kept propping up the myth of self-sufficiency with occasional examples of trivial home-grown innovations. But to be guilty of egocentricity or of a passion for independence is not yet the same as being guilty of stupidity or of wilful neglect. For proof, there is their current willingness to learn.

It was the phenomenon of the curriculum revolution in the United States in the late 1950s and early 1960s which began to reveal the doubts which now give the lie to the local systems' claim to educational uniqueness and self-sufficiency. The experience of the R & D centres and the regional educational laboratories also reveals how futile it is to expect significant educational innovations to originate in local school systems. What we are coming to understand is that educational change must be organised and managed, and that leaving educational inventions to chance can lead only to predictable inadequacies.

It was the experience with these new curricula produced wholly outside school systems that demonstrated the willingness, even eagerness, of school systems to adopt at diffusion rates far faster than had ever characterised their adaptability performance before, which should give pause to those who still believe the 1941 Mortian analysis that slowness to change is altogether a school system pathology. The agony is that even now many of those who are labouring in the vineyard of educational change are still focusing on the adoption phase when it has become clear that the first priority of concern should be for invention and development. 48)

Which is not to deny that the second priority exists, especially not to deny that the whole process of educational improvement from invention on through adoption might better be a more systematic one. What is being stated is that in the matter of educational change, scholars and practitioners alike seem for a long time to have been making the classic error of trying to solve the wrong problem.

The history of IPI is a case in point. The hope of individualising instruction is quite likely only a little more recent and only a little less obvious than the idea that people could learn if they were taught. A hundred years ago, for example, President Grant was able to grasp the truism that a gifted teacher - he chose Mark Hopkins, a legendary professor in his time - at "one end of a log" and a student on the other constituted the best of all possible educational situations.

A truism, but apparently impossible; how could each child be equipped with his own Mark Hopkins? Mass education enforced less desirable alternatives. The best that could realistically be hoped for were ways and means of leavening uniformity with a little equality. Smaller classes, grouping within classes, tutoring and remedial work, even independent study were all tried. When some technologies became available, it was even possible to think up teaching machines, programmed instruction and computer-assisted instruction further to customise the public schools. These devices, along with homogeneous grouping and multi-tracked curricula, were not actually individualising instruction, of course; schools were merely being honest in accepting the inevitability of uniformity in mass education and were only doing what they could to mitigate it within its own parameters.

Could they have done more? Not much; it was hardly the fault of chronically impoverished school districts that they could not support a research and invention capability, some mechanism from which it could be expected that powerful new ideas and products would emerge as they were needed. In the existing educational structure schools were locked in and could only lose ground to their problems, if their problems were major ones.

Obvious now, but it was a long time in becoming so. Always puzzling is the phenomenon which occurs so often in human experience, the sudden clarification of something which for a long, long time few had understood or even noticed. Air pollution is a current example, the liberation of women another. Just how and to whom the inspirational clarification first came is only historically interesting; of overriding importance is that it has now become undeniably clear that education had to have a self-conscious, structured and well-supported capability for inventing and developing educational innovations, or there would be few, if any, worthwhile major innovations. There had to be a change in the process of change. Now we know that the old depend-upon-inspiration-and-muddle-through-somehow way of creating products for educational improvement does not work because it cannot be equal to need.

Once the insight came, it was easy to see some analogues. Industry had long since given up depending on chance invention, choosing instead to spend vast sums for research and development in the expectation of getting powerful new change-products more rapidly and more predictably. Even education had an analogue in the curriculum revolution. The Physical Science Study Committee may have been a chance inspiration, but its semester's course in Physics was not. The years of work by a host of talented scientists and educators and the ten or twelve million dollars it spent were deliberate, purposive and creative. PSSC invented, developed, disseminated and diffused a new product, just as though it were General Motors. The research and development centres for education which were authorised and funded by Congress in 1964 derived from a tested concept.

When long-term support on an institutional basis became available for basic research in education, there was a Robert Glaser ready to form the Learning Research and Development Centre and to try to put together the critical mass of knowledge and talent it would take to invent the way to solve the hoary problem of individualising instruction. Which he did.

Had there been no R & D Centre the odds-on probability is that the idea of an individualised instruction strategy would have been presented by Glaser somehow, sometime. He had been thinking hard about it for years. But it is also an odds-on probability that the product, Individually Prescribed Instruction, would not have materialised.

As an idea it would have stirred a fair amount of interest among those who read the journals, but however attractive, as an idea it was of no utility to school administrators, except perhaps as a reference to use while again exhorting teachers to pay appropriate attention to the individual needs of their pupils.

Even after there was an IPI, the odds-on probability is that it would have dissipated into virtual uselessness if there had been no RBS. Almost certainly LRDC would have developed IPI to some reasonable point of research satisfaction, such as demonstrating its validity. Then LRDC would have disseminated information about IPI generally, more particularly to those who wanted to know more and, going to the limit of its funded responsibility, authorised textbook publication, thus giving its blessing to those school districts which wished to adopt IPI in its Oakleaf incarnation or adapt it in some reincarnation. Had that been done a great educational invention would have been stillborn.

Quite literally, there was no way, until Title IV of ESEA funded the regional educational laboratory, to develop, field test (redevelop), disseminate and diffuse an educational product of the scope and substance of IPI. No pre-existing agency or educational structure could do for IPI what RBS has been doing. Commercial publishers would not, perhaps could not, because they were neither organised for such research and development, nor would they have afforded the cost. Local school systems would not have considered the possibility, of course, for the same reasons. And LRDC did not conceptualise its work to include all the functions which RBS performed, nor was it funded to do so. 49)

One more point must be made to round out the instructiveness of the IPI example. Consider what would have been the probable diffusion experience if LRDC had gone as far as its Oakleaf production of IPI and then given it to a publisher for dissemination-diffusion, as was very nearly the case. In that event, a few venturesome school systems would have tried it, wrestled with some of the more obvious developmental problems with indifferent success, and finally either abandoned it on the grounds that it was impracticable or else pulled out some of its more practicable pieces and bastardised it.

This is no fantasy; it has happened just this way countless times in the history of education. There is no way to know how many good ideas imperfectly developed into usable products have been lost in this way, but their number must be at least just short of legion. Not all the educational ideas which did not achieve wide-scale adoption were merely "fits and starts" (as Mort called the failed attempts to solve educational problems); many were only undeveloped.

And there is also the need for nurture. What ought to be expected to happen when a complex educational product is cast cold into a school? It may please the sentimentalists to indulge their faith in the professional capability of administrators and teachers to do what needs to be done to make a new product work, but those who know schools have no such expectation. Instead, they understand that such an event is more than likely to cause confusion and resistance. In fact, the dislocation is usually too great to be overcome by what is sometimes called "support", such as a Xerox representative gives when he comes in to explain to secretaries how to operate the giant new copier the boss has just rented. Nurture is what is needed, the frequent, on-site help of a knowledgeable and sympathetic agent who is as interested and as involved in the school's successful experience with the product as are the administrators and teachers. How many good ideas and products have failed because they were not nurtured is also impossible to know.

The time has come, it seems, to add up experience and need and address the core problem of educational change, which is to build an educational system that has its change-capability built in. From the perspective of systems theory the public schools in the United States have never constituted a system; much less do the parochial and private schools. That public school districts have been called public school systems derived from the less specialised meaning of the word - "any assemblage of correlated members". In systems theory, a system is "an integrated assembly of interacting elements designed to carry out co-operatively a predetermined function." 50) The public school enterprise in the United States has never included an "integrated assembly of interacting elements" to invent, develop, disseminate and diffuse new educational products and practices.

To some, one of the more aggravating facts about the administration of Title IV and some other recent federal legislation is that the components of a national educational system are present, but have never been conceptualised and developed to become a system. The implied question was put to Richard McCann, who was a DEL staff official from its beginning until 1970. His response was as follows:

> The notion that the Laboratory Programme's mission was to build a system for educational development ebbed and flowed through the agency and the staff consciousness periodically from 1965-1969. It appeared, I believe, in the debates regarding whether or not to administer Title III and IV together. When the decision was negative, the idea ebbed. In her study of OE, (Congresswoman) Edith Green resurrected it as a "danger", there was discussion, and the decision was to avoid the issue. In their discussions of an association, Laboratory directors won the support of a number of the Office staff - hoping that co-operation at the programme level would develop. In the FY 1969 budget request, DEL enunciated the goal of the laboratories working together to insure that the product of any one laboratory would be a visible and viable alternative to schools in every section of the country. Funds were not allocated to support such efforts; again the idea ebbed.
>
> Each of these occasions allowed the idea of system to reach consciousness, but none was capitalised upon. I believe the agency was constantly held by the feeling that it did not have the resources, political support, or leadership capability to act overtly to insure that a system for education development and diffusion would become a reality.

Still, a system design may come, de facto. The R & D Centres, the educational laboratories and the Educational Resources Information Centres (ERIC) are the existing components out of which the systems design seems to be emerging.

But a true system requires an integration of interacting elements, and all forms of integration are difficult to achieve. Even if all the components were to exist, they must, in a system, operate in a unitary way. As the systems theorists say, a system is molar, not molecular. In the United States the public school tradition of home rule is still arrayed against the realisation of an integrated (molar) education system.

It is a strong tradition, founded on the principle of political freedom, and its virtues of democracy and independence have been so long extolled that it is an accepted article of patriotic faith. Even to seem to attack it raises suspicion. But it does not need to be attacked at all; the principle of political democracy through educational home rule can be altogether compatible with a systems design.

Of course, no one thinks that a system of public education in this new sense is likely to come into being in the United States quickly or easily. There are all kinds of problems to be resolved, besides the matter of home rule versus system. For example, if there were a system, should it be federal - that is, with major funding and operational control a federal responsibility - or national - that is, funded in a large part by federal money but operated through cooperative local school district and non-profit corporate structures? If a system were constructed and it were to require additional funding for local school districts, would the federal government provide such monies? To what extent should the R & D components be free to establish their own work-priorities? But the questions are too numerous to list, and until specific models are devised they are only academic.

We are some years away still from a readiness to construct and debate specific structures for a molar educational system for public education in the United States. At the time of writing (April 1971) Congress has not yet even debated the "National Institute for Education", the current proposal to improve the nation's educational research capability. This is not yet a system, of course, and it is too early to tell whether or not it will advance or retard the emergence of one.

In the meantime, the pivots of the "emerging system", the surviving laboratories, are striving to consolidate their gains.

From 1965-66 to 1971 the laboratories were submitted to the crucible. Of the twenty originally funded only eleven remain. The ones which failed were adjudged to be weak in performance by a combination of OE staff and outside consultants, based on evaluation. At least, they were found weaker than the others, for in a tight money situation, the Darwinian principle applied. But even the strong ones, and RBS is a strong laboratory, have their problems.

Foremost, there is the built-in hazard of annual appropriation bills in Congress, and the vagaries of an Executive Branch which must constantly reconsider its priorities, from administration to administration, and even from year to year. RBS has lived with that sort of tension and the accompanying tension of tight money all its young life and has learned something about how to cope with the anxieties. But no one minimises the toll it takes to do so. Certainly it would be wise to broaden the support base for the laboratories, but until one lives with it, it is hard to understand how difficult it is to replace or supplement federal money. The future support of the laboratories lies with federal funding. In all probability, for better or for worse - it's a marriage.

Now another kind of crisis is coming. Until now the laboratories were 'becoming', and however impatient Congress was, it could reasonably be maintained that developing tested products took time. The 'being' stage has been reached, and the new products - first IPI in RBS's case - will have to be successful in the schools. Not unnaturally RBS wants to assure itself that the schools will use IPI properly, which is the root cause of the hard negotiations with several prospective publishers who wish to market it on their usual, rather than RBS', terms.

Its other major programmes, HLP and ACP, will soon be ready for diffusion, too, and the precedents RBS is able to establish with IPI are critical for those programmes. Much of the payoff for years of hard and costly work will occur, one way or another, in the next year or so, not only for RBS, but for all the laboratories. RBS is, of course, optimistic about the success of IPI in its adoption stage, for the programme has met all its developmental evaluations very well, but so far the variables have all been pretty much under RBS' control.

RBS has some internal problems, too. One is that the structure of the organisation is serviceable, but not necessarily perfectly suited to the "management by plan" strategy RBS uses so well. Of course the problem is that an alternative structural model is hard to find; one will probably have to be invented. As yet the need to do so has not appeared to be urgent, but if RBS grows larger, as it will, the crunch may come sooner than expected. It is clear enough that the structure depends very much on the leadership powers of its chief executive - too much if the burdens become much heavier. Growth also poses the second problem.

Especially if RBS is successful with its initial products, the temptation will be to grow too large, to extend too far. The temptation is intrinsic, for the more the organisation does the more it and others perceive there is to do in a field whose potential has only barely been tapped. RBS will be under heavy pressure from its own board and professionals, and from outside sources as well, to respond to other needs. RBS will have to respond, of course; the question is only by how much. What seems wholly predictable is that the pressure for expansion and growth will greatly exceed what now appear to be realistic expectations of resources, given the scarce nature of talent and money. RBS will have to learn to say no in a lot of new ways if it is to preserve its operational integrity. In this sense RBS is threatened by success.

When the official agencies of federal government confront the question first, of whether, and then of how to organise an educational system to replace the current non-system, RBS and the other laboratories will be put to their severest test. The so-far independent entities - R & D centres, laboratories, ERIC and Co-operative Research of the US Office - will somehow have to be linked, if their potential is to be realised.

No one can say how RBS will fare, nor even that it will survive, though it will have been one agency most influential in opening the future of educational development to the imagination of those who will decide what the future of educational development may be.

Appendix I

EXAMPLE FROM HUMANISING LEARNING PROGRAMME

This is the specification for writing the first "sequenced step", (called P1, which stands for Progression 1) of the first instructional package in the first unit of the Interpersonal Skills portion of the Humanised Learning Programme - a snippet included to show the curricular approach.[48]

A conceptual specification to guide the curriculum writers:

Conceptual Teaching Sequence

Unit 1

The goals of Unit I (P1, P2, P3) are the introduction and use of introspective and extrospective descriptional (non-evaluative) skills, i.e. the identification of cues, stimuli, or sources to which people respond.

P1 consists of the learner describing his own experience of (internal response to) external and internal cues or stimuli.

s) describing his own sensation
f) describing his own feelings about the sensations
v) describing his own valuations (feelings about) of those feelings

I. First Conceptual Sequences Step Toward Goal of P1

The child will learn to identify, differentiate between and define the relationships among:

s) sensations	(stimuli → sensations)
f) feelings	(sensations → feelings)
v) valuations	(sensations & feelings → valuations)

s) Sensations are sensate experiences are provided by senses in response to internal and external stimuli.

1) exterior sations: Tell what is happening around us and/or to us (the environment is the source of

the stimuli). examples of senses providing environmental data: pain, fatigue, hunger, thirst, balance, position, temperature

2) interior sensations: Tell what is happening inside us and/or the present and changing state of our condition. examples of senses providing self-conditional data: pain, fatigue, hunger, thirst, balance, position, temperature

f) Feelings as emotional responses to sensate experience.

examples of feelings: anger, fear, joy, annoyance, worry

v) Valuations as feelings about feelings and/or about oneself having the feelings in response to sensations.

examples of valuations: positive, negative, ambivalent (not sure)

Example of a sequence of sensation, feeling, valuation:

s) sensation - seeing someone who appears to be suffering

f) feeling - feeling sad

v) valuation - feeling positive about sadness (in this case, it is "right" for me to feel sad.)

To reproduce so small a piece is a calculated risk for which the hoped-for communication objective is merely that a flavour will be savoured. Unfortunately, with work-in-progress there are no references to cite and dubious alternatives must be employed.

Appendix II

NOTES

1) The term "axe-grinders" was applied to these critics by Mary Anne Raywid in her book, The Axe-Grinders: Critics of Our Public Schools (New York: Macmillan, 1962), which is still the best study of the phenomenon.

2) The word "technique" is used here in Jacques Ellul's sense. His book, The Technological Society (Knopf, 1964), is still invaluable to anyone who wishes to explore the concept in all its philosophical depth.

3) It would be a partial error to say that nothing more was being done by administrators in these days than ask for more money, though that was surely their preoccupation. The reduction in the number of independent local school districts in the 40's and 50's - thus eradicating many that were too small to be viable - was an important development. There were, for example, 116,999 districts in 1940 and 40,520 in 1960.

4) This is the first sentence in John Kenneth Galbraith's The Affluent Society, Houghton-Mifflin, 1958.

5) It is impossible, really, to exaggerate how important the unique American form of school district decentralisation is in understanding the whole issue of accountability and financial support. Because the US Constitution is silent on the matter of public education, the guarantee of public schools derives from each state constitution. But with minor variations, local home rule, which is a tradition buttressed by judicial rulings, has actual operational precedence. In return, local districts are given, variously in each state, major responsibility for providing financial support for the schools. The effect on accountability is that it is the states', but not wholly, because home rule implies local accountability, too. The federal

government would seem to be free of accountability because its constitution does not mention public schools. But it does mention "public welfare", and that makes it accountable, too, except that no one can say how or how much.

6) Of course, those who opposed general aid from federal sources argued that control inevitably followed money: "He who pays the fiddler calls the tune." The truth is, actually, that general aid minimised federal control and categorical aid maximised it. But it must be remembered that the conflict was not theoretical, for it was clear that Congress was disposed toward control though it always had to deny it officially. Control, though, comes in amounts, and Congress did not want much control, only some.

7) The so-called "50-year lag" hypothesis was a popular over-simplification of the work of Paul R. Mort, the first American scholar who interested himself in disciplined study of the phenomena of educational change. In an early study, he discovered that:

> "... it is not unusual for a period of fifty years to elapse between the realisation of a need and the invention and first practical introduction of an acceptable way of meeting it. Following the first introduction (of an educational innovation) there is a slow period of tryout when those who try are true pioneers, braving the scorn of their fellows and possible loss of position and prestige. This period lasts until approximately three per cent of the potentially interested communities have made the change, a period of fifteen to fifty years. Thereafter the less caring take up the changes, and the next two per cent enter upon the new venture in a fifth of the time consumed by the first three per cent. The next five per cent period and the following ten per cent are bridged as quickly as the three to five per cent period, for somewhere along the line it becomes safe for sponsorship by the state department of education. It becomes accepted good practice. It flows forward then even if time has raised serious questions as to its validity. But fifty years may elapse before complete diffusion - a period approximately as long as the period from first realisation of need to the emergence of a

practical way of meeting it. Some adaptations move faster; others more slowly."

Paul R. Mort and Francis G. Cornell, American Schools in Transition, Bureau of Publications, Teachers College, Columbia University, 1941. pp. 405-406.

8) The statement is speculative, since it cannot be fact, there having been no public policy declaration of such an intent. But then it is also true that there would not be even were such a policy intended. It seems so important a hypothesis, however, that it is offered. In the last section a fuller discussion of this point will be attempted.

9) Stephen K. Bailey and Edith K. Mosher, ESEA: The Office of Education Administers a Law, Syracuse University Press, 1968.

10) Change and stability are antithetical, but also, of course, necessary to each other.

11) "Innovative and exemplary" was the phrase Title III used to define its purpose. For the first time in American public education the US Office of Education was rewarding changes in educational practice. Title III's grievous fallacy was that it assumed that public school administrators had a kitbag of good educational ideas unused because they lacked money. It was on this misapprehension that Title III foundered, as it mostly did.

12) The great fear was that the Philadelphia School District - or perhaps the major universities - would come to exert exaggerated influence on RBS.

13) Other labs, and RBS, in later programmes, chose the first alternative. There was an attraction about inventing that some were unable to resist, even though it was riskier. However, trying to identify a winning innovation in its first stages was almost as risky.

14) This is as good a place as any to settle on some word usages. In these pages "dissemination" means the spread of information, which is, like communication, more than just sending a message;

the message has to be heard, too. "Diffusion" means adoption. An educational innovation is said to be diffused when it is installed and used; the scale and rate of diffusion can be quantified.

15) At first, in those early days of the laboratory, the concept of "product" was not overt, but it was maturing in many minds. The contrast is between "product" and "idea", both of which can be innovative and useful. Breaking a class into reading groups, for example, is an idea. IPI was a product because it had a curricular design, a lot of lessons written on papers, a data-keeping system, a prescription system and a strategy of teaching which were all specific and tangible. Later on, as the concept became established, DEL became convinced, perhaps overly so, some said, that products were the preferred innovational output for the laboratories.

16) The phrase "teacher as observer and guide" was one of Paul R. Mort's most felicitous coinages. He meant, of course, to imply that learning rather than teaching was the main business of the schools.

17) The leadership strategy of inducing conflict for the purpose of clarifying differences of view and ultimately achieving higher levels of perception and agreement is a sophisticated one. Its use is less widespread than it ought to be, primarily because it demands a strong sense of security in the leader. It is probably not too much to say that were these planning days not characterised by this strategy, RBS might have foundered at the outset.

18) The story of DEL deserves to be written in detail, both because it is typical and atypical of the federal bureaucracy's problem in education. Unfortunately, only a little of that story can be told here. The effects of DEL upon RBS were, of course, very strong, often helpful, sometimes frustrating, but always important. For much of what follows in the next several pages the author is indebted to valued help from Richard McCann, a former DEL staff member.

19) Experienced Washington watchers agree that guerilla action, that is, one agency sniping at and ambushing another, is characteristic of the federal bureaucracy. In all probability, it is characteristic of all governmental bureaucracies everywhere.

20) It should be emphasised that several of the laboratory directors - chiefly Schutz of SWRL, Hemphill of FWLERD, and Becker of RBS - contributed greatly, both by conceptualisation and example, to the quality of the planning.

21) The term "product" came to be used to designate the output of the laboratories because both DEL and the laboratory directors were searching for a way to distinguish between ideas and usable programmes. The word had useful connotations for planning, and its positive connotations for influencing Congressional attitudes did no harm, either.

22) The argument was especially appealing to those laboratory boards and directors who were disposed to believe in the therapeutic quality of public relations.

23) Signet Press (New York), 1967.

24) Op.cit., p.36.

25) Y. Dror, "The Planning Process: A Facet Design", in *International Review of Administrative Science*, XXXIX, 1, 1963. pp.50-51.

26) This brief historical perspective is drawn, in part, from a dissertation-in-progress by John M. Dougherty, a member of the RBS professional staff.

27) The sum does not include the considerable investment by LRDC, nor the investment of some $7 million by school districts who are using and testing IPI.

28) The paragraph is a paraphrase of a description written by Robert Scanlon, Director, ILP.

29) Though LRDC was first funded in 1964 and began officially to work on IPI then, Robert Glaser, the Director, had actually been conceptualising IPI at least as early as 1961, perhaps earlier.

30) Much has been written pro and con about learning objectives stated in such a way that they could be measured, usually quantitatively. For IPI such behavioural statements are obviously vital: the Standard Teaching Sequence booklets which are used in both math and reading are each directed at a specific objective which is stated on the cover; the four diagnostic instruments - placement test, pre-test, curriculum-imbedded test and post-test - are each predicated on measurement of performance of specific objectives; the IPI continuum is, in fact, a list of specific behavioural objectives arranged by topic and degree of difficulty.

Much of whatever criticism is heard about IPI, in the main from persons who know it superficially (which is, of course, most people), is levelled at what is said to be its "mechanistic" look and feel. The impression is understandable because in IPI learning is directed at mastery of specified skills through preplanned instructional means. To those who are used to typical classroom operations, which are so different, IPI must seem very structured indeed.

31) A para-professional aide is necessary to the IPI system in order to relieve the teacher of the time and burden of doing the clerical work of checking tests and preparing record-keeping data.

32) In planning there is always the phenomenon of the GO —— NO-GO decision, the act of deciding whether to continue as planned, to abandon, to modify, or perhaps to recycle. In the planning process the actual plan is always subject to change of some kind, including its abandonment. To make such a GO —— NO-GO decision requires dependable evaluation data. IPI was, of course, subject to such a decision.

33) The original Clark-Guba model of the educational change process appears in a paper read by Egon G. Guba before a conference on "Strategies for Educational Change" in Washington in November, 1965. The paper is entitled, "Methodological Strategies for Educational Change". Later RBS experience showed the model to be faulty.

34) Those who wish a full account of RBS' present demonstration-training-dissemination strategy should read James W. Becker's article, "Incorporating the Products of Educational Development into Products" in *Journal of Research and Development in Education*, Vol. 3, No.2, 1970, Athens, Georgia.

35) A review of these early studies is contained in Donald H. Ross, ed., *Administration for Adaptability*, New York. Metropolitan School Study Council, 1958.

36) The best bibliography of the contemporary educational change literature is Louis M. Maguire, *An Annotated Bibliography of the Literature on Change*, Philadelphia. Research for Better Schools, Inc., 1970.

37) The group dynamics people are especially well-represented in the educational change literature. It should also be noted that the curriculum specialists inside the educational establishment are of much the same persuasion. See the volumes reporting the NEA Project on Instruction, 1963.

38) The listing below is a rewriting of a section of an ACP in-house planning document.

39) This is an interpretation, for ACP has not stated its focus using the work "risk". The ACP planning document seems clearly to imply the generalisation.

40) Louis M. Maguire, *Observation and Analysis of the Literature on Change*, Philadelphia. Research for Better Schools, Inc., 1970; Louis M. Maguire, *An Annotated Bibliography of the Literature on Change*, Philadelphia. Research for Better Schools, Inc., 1970; Sanford Temkin, *An Evaluation of Comprehensive Planning Literature with an Annotated Bibliography*,

Philadelphia. Research for Better Schools, Inc., 1970; and An Annotated Bibliography of Benefits and Costs in the Public Sector, Philadelphia. Research for Better Schools, Inc., 1968.

41) The study was a five-year multi-centered effort called Co-operative Program in Educational Administration (CPEA). It was supported by the Kellogg Foundation.

42) Proofs are the current drives for a voucher system, for greater accountability, for decentralisation and for contracting instruction to business organisations. All of these are strong movements in the contemporary American educational scene. Moreover each has strong support inside the profession.

43) The quotation is from an untitled "working paper" dated July, 1968.

44) One of the advantages inherent in a development organisation is that it has creative people so clustered that new ideas not only are thought of but explicated in an environment conducive to their development.

45) Again, the quotation is from the untitled in-house "working paper" of July, 1968.

46) One characteristic of a plan is that it is subject to change, because an organisation that lives by its planning does so continuously. Consequently, the HLP plan has been modified through the time of experience. In its basic substance, however, it is still representative.

47) This insight seems particularly worth recording because there are these days some in control of federal monies who are reluctant to approve sums budgeted for consultants. There are, no doubt, some cases where the practice has been abused, but the danger of "meat-axing", a behaviour to which bureaucracies (because they tend to live by rule rather than policy at the lower echelons of power) are susceptible, is that a lack of consultants can greatly impede work which requires diversified expertise. Few if any creative organisations can afford a staff which is totally expert.

48) Besides the effect of Mort's analysis, there is another explanation for the skewed concern with adoption phenomena. A large number of those "working" the field of change are psychologists, especially group dynamics types. They have a predilection for seeing all issues in human interaction terms.

49) RBS, or, of course, some other laboratory. A new agency, perhaps funded by a foundation might have been created for the express purpose of developing and diffusing IFI. But that begs the question.

50) The definition is Flagle's, in Charles D. Flagle, William H. Huggins, Robert H. Roy, Operations Research and Systems Engineering. Baltimore: The John Hopkins Press, 1960. pp.58-59.

Appendix III

GLOSSARY OF ACRONYMS

ACP	Administering for Change Programme, one of the three major programmatic activities of RBS.
DEL	The Division of Educational Laboratories in the Office of Education. The Division is the staff directly responsible for managing the federal role in operating the regional educational laboratory.
ESEA	The Elementary and Secondary Education Act of 1965. The law authorising the educational laboratory programme in its Title IV.
FY	Fiscal Year.
HEW	The Department of Health, Education and Welfare. The Office of Education is in this Department.
HLP	Humanising Learning Programme, one of the three major programmatic activities of RBS.
ILP	Individualising Learning Programme, one of the three major programmatic activities of RBS.
IPI	Individually Prescribed Instruction, a teaching-learning system which is the major component of ILP.
LRDC	Learning Research and Development Center, a federally funded Research and Development Center located in Pittsburgh, Pennsylvania. Invented and began the development of IPI.
NDEA	The National Defense Education Act of 1958.

OE	The United States Office of Education.
RBS	Research for Better Schools, Incorporated.
R & D	Research and Development.
REL	Regional Educational Laboratory

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PRINTED IN FRANCE